GREAT LAKES CONNECTING CHANNELS

UNIVERSITY
OF MICHIGAN
FEB 29 1956
MAIN
READING ROOM

HEARING

BEFORE A

SUBCOMMITTEE OF THE
COMMITTEE ON PUBLIC WORKS
UNITED STATES SENATE

EIGHTY-FOURTH CONGRESS

SECOND SESSION

ON

H. R. 2552

AN ACT TO AUTHORIZE THE MODIFICATION OF THE EXISTING PROJECT FOR THE GREAT LAKES CONNECTING CHANNELS ABOVE LAKE ERIE

JANUARY 26, 1956

Printed for the use of the Committee on Public Works

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GREAT LAKES CONNECTING CHANNELS

THURSDAY, JANUARY 26, 1956

UNITED STATES SENATE,
COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL—RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met, pursuant to notice, at 10:10 a. m., in room 412, Senate Office Building, Senator Robert S. Kerr (chairman of the subcommittee) presiding.

Present: Senators Kerr, Gore, McNamara, and Cotton.

Also present: Senators Wiley, Thye, Humphrey, and Potter; and Congressman Blatnik of Minnesota.

Senator KERR. We are about to have some hearings on H. R. 2552 to authorize the modification of the existing project for the Great Lakes connecting channels above Lake Erie.

Similar bills have been introduced in the Senate by Senator Thye of Minnesota, Senator Wiley of Wisconsin, Senator Humphrey of Minnesota, Senator Potter of Michigan, and Senator Langer of North Dakota.

They may be made a part of the record.

(The bills referred to are as follows:)

[H. R. 2552, 84th Cong., 1st sess.]

AN ACT To authorize the modification of the existing project for the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the project for improvement of the Great Lakes connecting channels above Lake Erie is hereby modified to provide controlling depths of not less than twenty-seven feet, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans approved by the Chief of Engineers, in the report submitted in Senate Document Numbered 71, Eighty-fourth Congress, first session.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

Passed the House of Representatives August 1, 1955.

Attest:

RALPH R. ROBERTS, *Clerk*.

[S. 151, 84th Cong., 1st sess.]

A BILL To authorize projects for the improvement of the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for improvement of the Great Lakes connecting channels above Lake Erie are hereby modified to provide controlling depths of not less than twenty-seven feet, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans to be approved by the Chief of Engineers.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

[S. 171, 84th Cong., 1st sess.]

A BILL To authorize the modification of the existing projects for the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for improvement of the Great Lakes connecting channels above Lake Erie are hereby modified to provide controlling depths of not less than twenty-seven feet the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans to be approved by the Chief of Engineers.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

[S. 961, 84th Cong., 1st sess.]

A BILL To authorize the modification of the existing projects for the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for improvement of the Great Lakes connecting channels above Lake Erie are hereby modified to provide controlling depths of not less than twenty-seven feet, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans to be approved by the Chief of Engineers.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

[S. 1032, 84th Cong., 1st sess.]

A BILL To authorize the modification of the existing projects for the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for improvement of the Great Lakes connecting channels above Lake Erie are hereby modified to provide controlling depths of not less than twenty-seven feet, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans to be approved by the Chief of Engineers.

[S. 1052, 84th Cong., 1st sess.]

A BILL To authorize projects for the improvement of the Great Lakes connecting channels above Lake Erie

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the projects for improvement of the Great Lakes connecting channels above Lake Erie are hereby modified to provide controlling depths of not less than twenty-seven feet, the work to be prosecuted under the direction of the Secretary of the Army and the supervision of the Chief of Engineers in accordance with plans to be approved by the Chief of Engineers.

SEC. 2. There are authorized to be appropriated such sums as may be necessary to carry out the provisions of this Act.

Senator KERR. We will now hear from our good friend from Wisconsin, Senator Wiley.

STATEMENT OF HON. ALEXANDER WILEY, A UNITED STATES SENATOR FROM THE STATE OF WISCONSIN

Senator WILEY. Thank you, Mr. Chairman.

As you have already stated, this is a hearing to go into the advisability of authorizing funds for the modification of the existing project for the Great Lakes connecting channels.

As you so well know, building the St. Lawrence Waterway is through the St. Lawrence River into the Great Lakes. They expect to have

that finished in a matter of several years. The connecting channels now are 24 feet in depth. The St. Lawrence Waterway, through the St. Lawrence River will be to a depth of 27 feet. The purpose here is to get the authorization for, as I recall, a certain sum of money to carry on the completion of the connecting channels.

I have a very brief statement, Mr. Chairman. With your permission I will read it.

Senator KERR. Very well.

Senator WILEY. I want to thank you for the opportunity to give my endorsement to legislation which would authorize the deepening and improving of the Great Lakes connecting channels.

I wish first, to congratulate the chairman and members of this subcommittee for making this legislation an early item of business. I am sure that this hearing signifies recognition of the importance and urgency of this legislation.

Legislation to deepen the connecting channels is, in my judgment, national legislation of the highest priority.

Unless Congress promptly completes the action to deepen and improve the channels, the people of the United States will be denied the full and intended impact of an important new waterway.

The comprehensive economic report of the President, which was transmitted to the Congress this week, sharply underlines the necessity for supporting this legislation. The President emphasized the fact that we have reached the threshold of a $400 billion economy, and employment is reaching 65 million.

If there is the slightest doubt concerning the President's hopeful outlook in his economic report, then there is ample opportunity for the holder of any such doubt to make certain that his doubts will be groundless. Yes, one of the ways to "take out insurance," so to speak, against any economic mishaps in the future, is to pass this channel bill.

Despite our favorable prospects, there is really no shortcut to maintaining and advancing our high level of economic activity. We must continue—by sound action—to provide for and build flourishing economic environment that will allow us to reach our full potential as a Nation. The legislation that we are considering here today qualifies in every way as basic economic "insurance" for an expanding economy in the future.

I recognize, of course, that your subcommittee receives a great number of requests for appropriations for various types of projects. You carry, therefore, the heavy burden of evaluating each of the requests in terms of whether or not it will genuinely contribute to the national well-being, and is actually worth the cost involved.

Weighed on this scale, this particular legislation certainly proves completely justified. While the $110 million sum requested is comparatively large, it will repay itself manifold on a regional, national, and, indeed, a continental basis.

So far as the region is concerned, I need only point to what one State is doing—my own—to evidence the tremendous role which the channels play in our thinking.

As Mr. Harry Brockel, able municipal port director of Milwaukee, will tell you, every port in my State of Wisconsin and in neighboring States, is gearing present and future plans to the movement of tens of millions of additional tons of commerce through the 2,300-mile

waterway. The very anticipation of this development has already contributed greatly to the increased prosperity of our Nation.

I point out to you that when, in May of 1954, the long 30-year battle for the overall seaway law ended successfully, it did not bring complete justice to all the Lake States. It left us of the upper lake, States west of Lake Erie, still without deepwater access to the ports of the world. In order to assure 27-foot channels, the entire length and breadth of the seaway, we have no alternative but to urge enactment of this bill.

In recommending passage of this legislation, America proves she appreciates the necessity for direct water access to the greatest agricultural and industrial complex in the world.

I should like to emphasize again, as I have before, in appearing on behalf of seaway legislation, that over 35 percent of the people of the United States, and 36 percent of the world population, live in the area served by the seaway. Nearly 50 percent of the farm products sold come from this area, and 32 percent of the Nation's manufacturing establishments are in this area.

President Eisenhower has, of course, given his support to this legislation. He has anticipated early Senate action by including in the budget for fiscal year 1957, a proposed supplemental item of $5 million for deepening and widening the connecting channels.

The President definitely indicated his backing of the project in estimating that the total cost of the project will be $110.3 million.

The immediate need then is to recommend this authorizing legislation and urge its early passage by the Senate.

Thus the actual appropriations bill thereafter will not be delayed.

I, therefore, urge earliest possible approval of this legislation, primarily to preserve and strengthen the economy of our entire country.

I point out that there was no opposition to this legislation in the House Public Works Committee, nor on the floor of the House of Representtives. The general controversy which had heretofore marked the seaway project has now fortunately ended. More and more areas of our country realize that what helps one region on a sound, sensible basis, will help the Nation as a whole.

I should like at this time to insert in the record of these hearings a few of the many individual expressions of support and resolutions for this legislation, which have recently come to me. These items were sent by the Great Lakes Commission, by the Great Lakes Harbors Association, the city of Manitowoc, the Green Bay Harbor and Industrial Authority, the city of Kewaunee, the Sheboygan Association of Commerce, the city of Port Washington, the city of Superior, and the Kewaunee Chamber of Commerce.

The concern of these organizations and cities will be ably seconded during this hearing by the some dozen and a half effective champions of the seaway and connecting channels legislation who I am delighted are here with your committee this morning. These gentlemen, I know from previous experience, will supply your committee with specific and detailed testimony, further substantiating the need for this legislation.

At this time, Mr. Chairman, I ask that these communications be made a part of your record. They are relatively few in number.

I thank you for listening.

Senator KERR. They will be inserted.

Thank you very much, Senator Wiley.

(The communications referred to are as follows:)

[The Council of State Governments, Chicago, Ill.]

RESOLUTION ADOPTED BY THE GREAT LAKES COMMISSION, CHICAGO, ILL., DECEMBER 12, 1955, IN RE DEEPENING OF THE CONNECTING CHANNELS OF THE UPPER GREAT LAKES

Whereas improvement by deepening the connecting channels in the upper Great Lakes will result in important benefits to the economy and defense of the Nation; and

Whereas a study by the Corps of Engineers of the cost of such improvements has clearly demonstrated a favorable benefit-cost ratio; and

Whereas the House of Representatives of the 84th Congress, 1st session, has approved H. R. 2552 authorizing such improvement; and

Whereas identical legislation has been introduced in the Senate; therefore, be it

Resolved, That the Great Lakes Commission meeting in Chicago, Ill., December 12, 1955, urges early consideration and enactment of legislation now pending in the United States Senate for deepening the connecting channels in the upper Great Lakes in accordance with the recommendations of the Corps of Engineers: be it further

Resolved, That the Council of State Governments be request ‹‹to send copies of this resolution to the members of the congressional delegations from the eight Great Lakes States and to members of the Senate Committee on Public Works.

RESOLUTION APPROVING LEGISLATION AUTHORIZING DEEPENING OF GREAT LAKES CONNECTING CHANNELS TO 27 FEET

[Adopted at 1955 annual convention, Milwaukee, Wis., November 15, 1955. Refer to File 565, Great Lakes Harbors Association, Grand Haven, Mich.]

Whereas the United States House of Representatives has approved legislation, without a dissenting vote, to authorize improvements to the Great Lakes connecting channels so as to provide a depth of 27 feet above low-water datum; and

Whereas an increase in depth to 27 feet in the connecting channels is essential to service domestic commerce; and

Whereas such increase in depth to 27 feet in said connecting channels is likewise necessary and essential to provide the full benefit of the Great Lakes-St. Lawrence seaway to the Great Lakes ports and harbors located west of Lake Erie: Now therefore be it

Resolved, That the Great Lakes Harbors Association urges the United States Senate to give speedy approval to the legislation which authorizes the necessary improvements to the channels in the St. Marys River, the Straits of Mackinac, the St. Clair River, Lake St. Clair, and in the Detroit River so as to provide navigable channels of 27 feet in depth.

CITY OF MANITOWOC, WIS.,
OFFICE OF CLERK,
January 19, 1956.

Senator ALEXANDER WILEY,
Senate Office Building,
Washington, D. C.

DEAR SIR: Enclosed is certified copy of resolution unanimously adopted by the mayor and common council of the city of Manitowoc, Wis., at their regular meeting of Monday, January 16.

The resolution as you will note, endorses the connecting channels legislation.

Very truly yours,

ARTHUR POST, *City Clerk.*

RESOLUTION

"Whereas there is certain legislation before the Public Works Committee of the United States Senate which has as its subject Connecting Channels Legislation said legislation being of vital interest to the citizens of the city of Manitowoc; and

"Whereas it is expedient and necessary that improvements to the connecting channels of the Great Lakes are especially important to the city of Manitowoc for the completion of the St. Lawrence seaway; and

"Whereas the work on the channels should be undertaken without further delay and that said project will provide for the deepening of the Detroit River, Lake St. Clair, the St. Marys River and the removal of some shoal spots in the Straits of Mackinac: Now, therefore, be it

"*Resolved by the mayor and common council*, That we hereby adopt a resolution endorsing the connecting channels legislation: And be it further

"*Resolved*, That a copy of this resolution be sent to the Honorable Alexander Wiley and the Honorable Joseph McCarthy in Washington, D. C."

KENNETH H. HENDRICK.

Introduced, January 16, 1956; adopted January 16, 1956; approved January 19, 1956.

WALTER KORPKE, *Mayor.*
JANUARY 16, 1956.

Committee recommends adoption of resolution.

KENNETH H. HENDRICK.
E. W. JERIKOVEO.
E. J. REVOLINSKY.

CERTIFICATE

STATE OF WISCONSIN,
City of Manitowoc, ss;

I, Arthur Post, city clerk of and for the city of Manitowoc of the State of Wisconsin, do hereby certify that I have compared the attached copy of a resolution with the original of said resolution on file in my office, and that the said copy is a true and correct copy of such original resolution duly and regularly adopted by the Common Council of the City of Manitowoc, Wis., at a meeting held on Monday, January 16, 1956.

Witness my hand and seal this 19th day of January 1956.

[SEAL] ARTHUR POST, *City Clerk.*

GREEN BAY HARBOR AND INDUSTRIAL AUTHORITY,
OFFICE OF SECRETARY,
Green Bay, Wis., January 18, 1956.

Hon. ALEXANDER WILEY,
Senate Office Building, Washington, D. C.

DEAR SENATOR WILEY: At a meeting of the Green Bay Harbor and Industrial Authority held in the city hall, Green Bay, January 16, 1956, by unanimous action I was instructed to urge you to use your good offices in an effort to have enacted into law the bill authorizing deepening and other improvements of the connecting channels of the Great Lakes, which bill is scheduled for public hearings before the Public Works Committee of the United States Senate beginning January 26, 1956.

I am sure you realize the importance of the proposed improvements to the people, whom you so ably represent, and particularly to the economic well-being of the great State of Wisconsin and the hinterland, which is served through its Great Lakes ports. We therefore bespeak for this legislation your active and continuing support.

Yours very sincerely,

W. F. KERWIN, *Secretary.*

RESOLUTION

Be it resolved by the Common Council of the City of Kewaunee, Wis., That we do hereby notify the two United States Senators from Wisconsin, Hon. Alexander Wiley and Hon. Joseph R. McCarthy, of our deep interest in the success of the bill authorizing improvements to the connecting channels of the Great Lakes, hearings on which are to be held by the Public Works Committee of the United States Senate starting January 26.

William A. Murphy, Sylvester P. Mouty, Robert F. McKay, J. P. Stangel, Robert J. Albrecht, W. J. Wessely, J. H. Jerabek, Thomas Kelliher, C. F. Temley (Mayor).

SHEBOYGAN ASSOCIATION OF COMMERCE,
Sheboygan, Wis., January 26, 1956.

Hon. ALEXANDER WILEY,
United States Senator,
Senate Office Building,
Washington, D. C.

DEAR SENATOR WILEY: At the regular meeting of the executive committee of the Sheboygan Association of Commerce on January 19, 1956, the following resolution was unanimously adopted:

"Whereas we are informed that hearings will be held by the Public Works Committee of the United States Senate beginning January 26, 1956, on a bill authorizing improvements to the connecting channels of the Great Lakes; and

"Whereas these connecting channels are especially important to the port cities located on the upper lakes; and

"Whereas the project will provide for the deepening of the Detroit River, Lake St. Clair, the St. Marys River, and the removal of some shoal spots in the Straits of Mackinac, making it permissible for large oceangoing vessels to reach such cities as Detroit in Michigan, and the cities on Lakes Huron, Michigan, and Superior; and

"Whereas we feel this improvement to be all important in the future progress of this community to derive benefit from the completion of the St. Lawrence seaway project: Now, therefore, be it

"*Resolved*, That the Sheboygan Association of Commerce requests the Congressmen of the United States to take steps to pass legislation authorizing improvements to the aforementioned connecting channels, so that the maximum benefit and widest scope of operations be derived from the construction of the St. Lawrence seaway; be it further

"*Resolved*, That the executive vice president is authorized and directed to forward copies of this resolution to the Honorable Senators Wiley, Joseph McCarthy, and Representative Wm. K. Van Pelt."

We respectfully request your support of this project.

Sincerely yours,

L. N. MATHIEU,
Executive Vice President.

RESOLUTION 766—ENDORSING ST. LAWRENCE SEAWAY, CONNECTING CHANNEL LEGISLATION—PRESENTLY PENDING BEFORE UNITED STATES SENATE

"Whereas the city of Port Washington, being a Lake Michigan port city with a harbor receiving annual tonnage of 1 million tons, and vitally interested in the completion of the entire St. Lawrence seaway project; and

"Whereas there is presently pending before the United States Senate a bill authorizing improvements to the connecting channels of the Great Lakes: Now therefore, be it

"*Resolved*, That the city of Port Washington, by appropriate action of its common council, endorses this connecting channel legislation and urges its passage: And be it further

"*Resolved*, That a properly attested copy of this resolution be sent to the Honorable Alexander Wiley and the Honorable Joseph McCarthy."

Passed and approved this 24th day of Januray 1956.

PAUL T. SCHMIT, *Mayor.*

Attest:

GEORGE KRICK, *City Clerk.*

I, George Krick, city clerk of the city of Port Washington, hereby certify that the above is a true and correct copy of a resolution passed and approved by the Common Council of the City of Port Washington at a regular meeting held on the 24th day of January 1956.

GEORGE KRICK, *City Clerk.*

SUPERIOR, WIS.,
January 27, 1956.

Hon. ALEXANDER WILEY,
United States Senate, Senate Office Building,
Washington 25, D. C.

DEAR SENATOR WILEY: I am enclosing a copy of a resolution passed and adopted by the Council of the City of Superior on the 17th day of January 1956 urging the Public Works Committee of the United States Senate to give favorable consideration to the bills authorizing improvements to the connecting channels of the Great Lakes.

Sincerely yours,

R. E. MCKEAGUE,
City Clerk, City of Superior, Wis.

RESOLUTION INTRODUCED BY THE CITY COUNCIL OF THE CITY OF SUPERIOR, WIS., URGING THE PUBLIC WORKS COMMITTEE OF THE UNITED STATES SENATE DO GIVE FAVORABLE CONSIDERATION TO THE BILLS AUTHORIZING IMPROVEMENTS TO THE CONNECTING CHANNELS OF THE GREAT LAKES

"Whereas the Public Works Committee of the United States Senate will, on the 26th day of January, begin hearings on the bill authorizing improvements to the connecting channels of the Great Lakes; and

"Whereas this bill has already passed the House of Representatives and now needs affirmative action by the Senate to become effective; and

"Whereas improvements to the connecting channels will cover a period of several years; and

"Whereas the improvements to the connecting channels of the Great Lakes are especially important to all port cities on the upper lakes, and particularly important to the city of Superior: Now, therefore, be it

"*Resolved by the City Council of the City of Superior, Wis.*, That this body urge our representatives in Washington to do all in their power to facilitate and speed up improvements to the connecting channels: Be it further

"*Resolved*, That a copy of the resolution be forwarded to our Senate representatives, and copies to the Great Lakes Harbors Association."

Passed and adopted this 17th day of January 1956.

Approved this 18th day of January 1956.

EDWARD G. NELSON,
President of the Council.

Attest:

R. E. MCKEAGUE, *City Clerk.*

KEWAUNEE CHAMBER OF COMMERCE,
Kewaunee, Wis., January 26, 1956.

Senator ALEXANDER A. WILEY,
United States Senate, Washington, D. C.

DEAR SENATOR: The Kewaunee Chamber of Commerce is following with interest the course of action in the United States Senate regarding pending legislation for improvement of Great Lakes connecting channels.

We know that you have been a leader of the fight in favor of the bill, and we wish to encourage you to continue because it seems apparent that the full benefit of the St. Lawrence seaway will not be realized unless favorable action is taken regarding the connecting channels.

Yours very truly,

E. F. STIKA,
Secretary, Kewaunee Chamber of Commerce.

Senator KERR. Senator Thye, of Minnesota.

STATEMENT OF HON. EDWARD J. THYE, A UNITED STATES SENATOR FROM THE STATE OF MINNESOTA

Senator THYE. Thank you, Mr. Chairman.

Mr. Chairman, I am indeed very happy that we have the opportunity to come before your committee at as early a date as this is in the second half of this legislative Congress, because holding hearings

this early will give us the opportunity of getting early action on the authorization and will permit the Appropriations Committee due time to consider it, too.

Mr. Chairman, I wish to thank you for the opportunity of appearing before this subcommittee which is now considering various bills which would authorize the modification of the existing project for the Great Lakes connecting channels above Lake Erie.

As you know, I introduced on January 6, 1955, S. 151, which is now up for consideration. I have always been a staunch advocate for the proposed legislation.

I am hopeful that we will be successful in enacting legislation in this session of Congress so that this project might proceed toward completion as quickly as possible.

This is not a new project. But with each passing year, the urgency for favorable action becomes more apparent.

We realize that the Great Lakes, together with the connecting channels, form the most important system of inland waterways in the United States. We are told that for the year, 1953, Great Lakes commerce, exclusive of commerce between foreign ports, totaled 243 million tons. The major item of commerce in the downbound traffic is iron ore originating principally from the mines of Minnesota adjacent to Lake Superior. Various types of stone and grains constitute other major items of downbound traffic. Coal is the principal upbound commodity moved through the Great Lakes.

This vast yearly shipment of key commodities on the Great Lakes is an important part of this Nation's industrial and economic activity. To handle this commerce, there is a Great Lakes cargo fleet numbering approximately 300 vessels. There are about 286 vessels with American registry and two-thirds of them are over 40 years old. These vessels carry with them the burden of high maintenance and operating costs. They are being replaced with new, modern vessels which will demand a deepening of the channels to the proposed 27-foot depth.

The Corps of Engineers and the Board of Engineers for Rivers and Harbors have recommended the modifications of the connecting channels as a project separate and apart from the St. Lawrence seaway. However, I should like to point out that the proposed depth of the seaway will be no less than 27 feet. It, therefore, becomes important that the connecting channels be modified to correspond to a 27-foot depth in order to have an orderly and efficient flow of traffic from the seaway into the Great Lakes system.

It is estimated that the deeper channels would result in savings of $10 million annually in the shipments of iron ore, stone, grain, coal, and other commodities during the next 50-year period. This estimate is based upon an average of 88,300,000 tons of traffic per year.

I am firmly convinced that the modification of the connecting channels to a 27-foot depth will have a profound effect upon the future economic expansion of this Nation. We, in Minnesota, realize that it will serve as a stimulus for future expansion in our State.

The history of the iron mines in Minnesota is one which is well-known throughout this Nation. Within the past few years, we have seen the advent of the taconite industry in Minnesota along the shores of Lake Superior. This use of low-grade ores is important to the industrial future of the Nation. This new industry will serve to stimulate increased shipping on the Great Lakes.

It has become plain that with the St. Lawrence Seaway, with the ever-increasing use of new and larger vessels, with an increased demand for water transportation in the Great Lakes area—the connecting channels must be modified to provide for a 27-foot depth.

Time becomes of the essence when we consider that if favorable action is taken during this session of Congress, it will still be 1963 before the deeper channels would be ready for traffic. I, therefore, urge your careful consideration of the proposed modification and call for immediate action so that this important project can move forward toward completion.

Mr. Chairman, just in closing, I would like to call to the attention of you and this committee that as this connecting line develops and we do establish deep oceangoing vessel opportunities into this heart of North America, we not only increase the potential of permitting the deployment of the industrial plants of the Nation for the safety and security of our defense, but we do afford the central part of America, not only the United States but Canada, the opportunity of having oceangoing vessels coming into the interior part of the Nation to pick up the grain and the other necessary materials going down the lakes.

As well, we will have the opportunity of bringing in from the ocean, oceangoing vessels which may come up into the interior part of North America, thereby greatly enhancing the opportunities of the Central West in its development, and that I think is an absolute necessity if we are to be certain of our national security and having our industrial plants deployed sufficiently so that one bomb does not take out too great a portion of our industrial plant were we to be so unfortunate as to have such a warfare brought to our continent.

So I think it so very important that we give early consideration to this entire legislation embodied in the connecting links or connecting channels within the lake cities.

Again I thank you and your committee for giving me this opportunity of appearing before you.

Senator KERR. Thank you very much, Senator Thye.

We have on our committee a distinguished Senator from Michigan, who has been tremendously interested in this legislation, and has been quite instrumental in bringing about these hearings, our good friend Senator McNamara, and also the distinguished senior Senator from Michigan, Mr. Potter.

STATEMENT OF HON. CHARLES E. POTTER, A UNITED STATES SENATOR FROM THE STATE OF MICHIGAN

Senator POTTER. Mr. Chairman, first I would like to thank you and the members of your committee for the early consideration of this bill. I know that Senator McNamara has had a great part in bringing this to the attention of the full committee.

My statement is very short. I would seek the privilege of reading the statement, if I may, Mr. Chairman.

Senator KERR. You may proceed.

Senator POTTER. It is with a great deal of satisfaction that I view the wonderful progress which we have made so far. At the same time I am sure we are all aware that the realization of the greatest shipping potential of our Great Lakes is dependent upon even further steps.

When the completion of the St. Lawrence seaway brings world commerce to our Great Lakes, we then have to make sure that that commerce can move freely among our Great Lakes. That, of course, is why I introduced my bill, S. 1032, last February. I now urge this committee's favorable report on my bill, or, since I am not troubled with pride of authorship, such a bill as embodies the important point—that is, of course, the deepening of those channels which connect Lake Superior, Lake Huron, Lake Michigan, and Lake Erie. A channel depth of 27 feet for both upbound and downbound traffic is now desirable. Our older vessels are being replaced with larger, more modern ships requiring greater depths in those channels.

I know that you already have information available showing that in 1953 these waterways carried 17 percent of our Nation's ton-mileage of freight traffic and almost 28 percent of the total waterborne commerce of the United States in that year. The Great Lakes provide for mass movements of bulk heavy tonnage at unusually low transportation costs. These waterways are the heavyweight highways for our natural resources such as coal and iron, and for our agricultural and industrial heartland.

It is not alone for our own interlake traffic that we are concerned. The deepening of the channels will assure that foreign trade from all parts of the globe will have access to the many existing ports now in our Great Lakes. It is reasonable to believe that the inflow and outflow of agricultural products, raw materials and industrial goods will not only provide a strong economic stimulus to those existing ports but encourage the development of even more ports. Thus, in reality the United States will have a fourth coastline.

I am sure this fourth coast will be the "gold-coast" as the trade center of the Nation is brought to the very door of world commerce. I have urged the Federal Maritime Board to take immediate steps to authorize foreign trade routes for Great Lakes ports. The increased tonnage traveling along our St. Lawrence seaway will be such that we can expect a volume of 45 million tons of cargo per year within a matter of about 10 years. That, incidentally, is 40 percent more than goes through the Panama Canal.

The tolls alone on the seaway are estimated to bring in as much as $36½ million a year at that time. So economically the relatively small cost of deepening these connecting channels will prove to be a real bargain. Seldom are we privileged to enact legislation which will bring such great benefits to so many people at so little cost and we should never overlook the significance of such channels to our national defense. We can never foretell how important adequate channels would be to us in the movement of materials, men and equipment in times of emergency. Work on the seaway is progressing rapidly and work on connecting channels should be started this year to coincide with its completion.

Authorization for these connecting channels is needed without delay so that the necessary funds can be appropriated and the work started. It is for these reasons that I respectfully urge you to act favorably on the bills before you which would bring about this greatly desired improvement of the Great Lakes connecting channels and bring about the real completion of the St. Lawrence seaway.

Mr. Chairman, I again want to thank you for the courtesy that you have extended those of us from the Great Lakes States area, and I am

privileged—I know that later on you will have testimony from very distinguished citizens from our State. We have one here, Mr. John Beukema, from Muskegon, who is scheduled to testify, and a member of the advisory committee on the St. Lawrence seaway.

We have, of course, the very able talent of the Corps of Engineers who will give the more detailed information on this great project.

Personally, I want to thank the chairman and the members of the committee for its great courtesy.

The CHAIRMAN. Thank you very much, Senator Potter.

I notice our good friend, the distinguished Senator Humphrey, from Minnesota, is with us. We will be glad to hear from him.

STATEMENT OF HON. HUBERT H. HUMPHREY, A UNITED STATES SENATOR FROM THE STATE OF MINNESOTA

Senator HUMPHREY. Thank you very much, Mr. Chairman.

I want to thank the chairman and the members of the subcommittee for their timely and early consideration of this important project. The senior Senator from Oklahoma assured us last year that this would be done. He is a man of his word and we are now proceeding.

I want to join with my colleagues who have testified here in behalf of the channel-deepening program. I notice that the bill before you is H. R. 2552.

Senator KERR. We also have in the record your bill, Senator.

Senator HUMPHREY. As Senator Potter said, there is no pride of authorship on my part, either. The most important thing is to get the project underway and the authorization legislation adopted.

I am pleased to note in this room the Congressman from the Eighth Congressional District of Minnesota, Congressman Blatnik, who I recall is the author of the House resolution that is before us. He devoted a great deal of his time and attention to this particular program and to the St. Lawrence seaway. I hope that the members of the subcommittee will permit me a certain amount of pardon and only pride when I say we call this Congressman the St. Lawrence Waterway Congressman, because he has been fighting for it all of his adult life and I think he may have even done some scrapping for it before that.

Mr. Chairman, the State of Minnesota is vitally interested in this proposed project, and not alone because it will provide safe access for oceangoing vessels from the Atlantic to Minnesota via the St. Lawrence seaway. If there were no St. Lawrence seaway, the needs of the vast inland industrial heart of the Nation would still demand that the connecting channels be deepened. The satisfaction of these needs is long overdue.

The natural waterway, which links the State of New York directly with the industrial and agricultural heart of the Nation—with Pennsylvania and Ohio, Michigan and Indiana, Illinois, Wisconsin and Minnesota—is almost an inland sea.

I don't think geography indicates that there is any Nation in the world so fortunately blessed by such a natural inland water system as the United States of America. It is possibly one of our truly great assets, greater in its importance to our country than any nuclear weapon or any scientific discovery.

The lakes are a natural resource very nearly incapable of evaluation. They have been the sine qua non of the magnificent American steel industry—that industry which underpins the whole fabulous American economy.

Overwhelmingly, the commerce of the Great Lakes has been the freighting of iron ore from the ranges of Wisconsin and the Upper Peninsula of Michigan, with most of the ore coming from the Cuyuna, Vermillion, and the vast Mesabi Range of Minnesota. Eighty-five percent of all the steel produced in the United States has originated in ore freighted from the upper Great Lakes region via Lake Superior to the great "Soo" Canal at Sault Ste. Marie, down the St. Mary's River, across Lake Huron to the St. Clair River and Lake St. Clair, past Detroit via the Detroit River and on to the steel mills of Ohio and Pennsylvania; together with a strong flow of ore through the straits of Mackinac, down Lake Michigan to the mills in the Gary-Chicago area. With the gradual depletion of the magnificent Mesabi direct-shipping ores, a new form of high-content ore has been developed in the Mesabi area to replace the old ores. This is taconite—a Minnesota development which I am convinced will someday be hailed as the key to the Nation's industrial and defense economy—an almost unlimited domestic source of iron ore.

This word "taconite," Mr. Chairman, out our way is almost a word of miracles. We have huge deposits of the ores which make possible this commodity known as taconite. As I mentioned earlier here, this fine Congressman of ours from the Eighth District, Mr. Blatnik, when he was in the State legislature, sponsored the original legislation which made possible special consideration for taconite development under our tax laws.

Senator KERR. I might say, if I might be permitted to interrupt, that you had a genius out there in one of your great educational institutions who spent a quarter of a century proving his theory, not only that it was a very efficient and usable ore, but finding a way to use it economically.

Senator HUMPHREY. That is correct, Senator. It is Dr. Davis.

Senator KERR. I am sure that when Minnesota builds monuments to those who have made their greatest contribution to the State and the Nation, they will have difficulty overlooking him.

Senator HUMPHREY. I do not think it will be possible to overlook Dr. Davis. He has been such a tremendous source of pride to the whole State, and of course a genius as you well pointed out.

Iron ore, while the major item of commerce on the Great Lakes, is far from being the only important item. The district engineer estimates that in addition to 65 million tons of iron ore, 17,500,000 tons of stone and 5,800,000 tons of grain will be benefited each year for the next 50 years. These are tremendous amounts of tonnage in their own right and appear small only beside the staggering figures for iron ore.

Newer ships, gradually replacing the most obsolescent ships of the Great Lakes fleet now serving the steel industry, are faster and larger. They are potentially greatly more efficient. But their efficiency is presently sharply curtailed because ore ships traveling from Duluth and Superior to the great steel mills of lower Lake Michigan and Lake Erie must continue to traverse connecting channels completed in

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1895. These channels allow only vessels drawing 22.3 feet or less to traverse safely from Duluth to the Erie ports.

Some of the newer vessels of the Great Lakes fleet are designed to carry safely more than 26,000 tons, but it is presently impossible to load them to anywhere near this limit because the present depths of the 3 connecting channels will not permit it.

It is interesting and instructive to note that a large ore carrier of 20,000 tons capacity can presently be loaded to capacity only during unusually high water conditions. When the lake levels fall to their lowest cyclical point, such a vessel will not be able to navigate the present channels fully loaded. But with channels deepened an additional 2 feet, such a vessel could be loaded with 2,400 tons more ore. The Lake Carriers Association estimates that if water levels were at datum the loss of tonnage would be some 3 million tons in a season.

The proposed project which the Congress is asked to authorize will allow the deepening of the 3 connecting channels to a depth of at least 27 feet, and will safely accommodate vessels upbound and downbound with drafts of 25.5 feet, at low-water datum.

The Corps of Engineers estimates that the prospective commerce to be benefited by the deepening of the channels will average 88,300,000 tons each year—exclusive of commerce via the St. Lawrence. Yet it is interesting to note that in 1 year—1953—the fleet hauled 95,844,449 tons of iron ore alone through the channels to the steel mills of the lower lakes.

I mention that figure because I think the estimates which are made as to future commerce are very, very modest.

The demand for steel, as we know, is rising steadily. Our steel mills are consuming ore at better than 7 million tons per month this year—2 million tons more per month than last year.

The Iron and Steel Institute in its 1955 spring meeting estimated that American steel production would rise by 2 million tons per year for the foreseeable future. The goal is to produce 160 million tons per year, compared to the 110 million tons we now produce.

In an all-out war, the economic backbone of this Nation, without question is the steel industry and that backbone can be geographically described by the course of the Great Lakes and their connecting channels which link the massive deposits of domestic iron ore at the western end with the rich coalfields of the eastern terminus. Along this backbone ply the ships of the Great Lakes fleet, free from submarine attack, servicing the industrial heart of the Nation—truly the arsenal of democracy. On the grounds of the Nation's defense alone, the channel deepenings would be warranted. When war comes—and pray to God that it does not—$109 million becomes immediately a relatively trivial sum. But even a billion dollars could not then deepen the Great Lakes channels quickly enough to speed up the flow of vital iron ore in time.

Even in peacetime, however, deepening of the channels far more than justifies its cost. Total first costs of the project to the Federal Government would be, as I understand the 1954 estimates, Mr. Chairman—and I don't have any later ones—$109,125,000 on a 1954 price basis. This is a modest sum when the long-range benefits to the Nation are considered. It is a modest sum, also, considering the sum being allocated to the deepening of a 31-mile stretch of the Delaware River to service the new Fairless works—$87 million. This is

not to be interpreted as being opposed to that. As a matter of fact, I voted for that, feeling that it was in the public interest.

The Corps of Engineers estimates the annual charges for the channel work to be $4,250,000. The corps estimates the annual benefit due to the channel deepening alone to be $7,600,000 which is a highly favorable cost-to-benefit ratio of 1 to 1.7.

The engineers have been careful to limit their estimates of the benefits to be gained by deepening the connecting channels to the internal commerce of the Great Lakes between American ports—excluding that which will enter and leave the lakes via the St. Lawrence seaway when the project is opened in 1959.

Additional unevaluated benefits will accrue in connection with commerce which is exclusively Canadian and with commerce entering or leaving the lakes through the St. Lawrence seaway—

say the engineers.

Yes; the proposed project to deepen the connecting channels stands on its own merits. It is necessary. And it is long overdue. It would be completely justified if the Great Lakes were land-bound, without access to the sea.

But, I cannot help but contemplate what the engineers have so cooly termed the "unevaluated benefits" which will accrue when the St. Lawrence seaway opens the Lakes to ocean shipping, and the connecting channels make it possible for the oceangoing vessel to steam 2,400 miles inland from the Atlantic, and 2,400 miles from Minnesota to the open sea.

The existing project provides for upbound channels with depths suitable for vessels drawing only 20 feet when lake stages are at their established levels. What is proposed is to deepen the upbound channels as well as the downbound channels to accomodate oceangoing vessels drawing up to 25.5 feet.

With the St. Lawrence seaway and the connecting channels open to ocean shipping, the effect will be to extend our coast line from the tip of Maine to the Minnesota shore of Lake Superior—to make direct coast-wise shipping possible and thereby link the Midwest with the Atlantic and Gulf States via tanker and cargo ship.

The St. Lawrence Seaway Corp. estimates that 55 million tons of commerce will move along the seaway by 1970. It is only conjecture what this will mean to the port cities of Buffalo and Erie, Ashtabula, Cleveland, Lorain, and Toledo; to Detroit and Marquette, to Chicago and Milwaukee, to Ashland, Superior, and Duluth.

I want to digress to say that when this channel deepening comes through, the tremendous amount of capital investment in the port cities will be one of the great factors in expanding our economy.

I was in Cleveland just the other day and found out what they are doing there along the lakefront in terms of new port facilities. In Duluth, Minn., they have established a port authority, and hired a new port authority director. They are preparing to spend many thousands and thousands of dollars to expand their port facilities. This will be one of the greatest public works programs in terms of commerce and transportation that the Nation has ever known, totally aside from the deepening of the connecting channels. This will be finished locally by the municipalities, States, and private industry.

But we know what riches the sea has brought to every great port of the world. And few ports have so rich a hinterland, so much to export

to the world, and such eager markets as do the port cities of the Great Lakes.

This hinterland consists of 17 States, producing 31 percent of the Nation's industrial goods and 34 percent of its food and fiber.

This will be the northern seaboard of the United States, the busiest and perhaps the richest of the three American coasts.

No one can ignore the probabilities of the future of the Great Lakes. No one—and certainly not a midwesterner who has lived most of his life more than a thousand miles in any direction from salt water—can regard with equanimity opening of the heart of America to seagoing vessels. Yet, we are asked to do just this today. We are asked to consider the deepening of the connecting channels solely in the light of their calculated benefits to the inland commerce of the Great Lakes. These benefits are clearly outlined. The costs are carefully presented to us. And solely on the comparison of the costs and benefits to this inland commerce, the proposed modification is eminently justified.

I strongly urge that the subcommittee act favorably on the proposed bill, so that it may be brought speedily before the full Senate for authorization. If action can be taken promptly it will be possible to secure in this session of Congress the necessary appropriations to commence work on the channels during the present year.

Mr. Chairman, again I want to say to you and your colleagues, I have been very, very appreciative of the friendly consideration which you have given to those of us who have supported this particular project. I want the record to be crystal clear, that even as of last year the Chairman went out of his way to be helpful. We are really looking forward to favorable action. I kind of feel that maybe we are going to get it. At least we hope so, because we trust your good judgment.

Thank you.

Senator KERR. Thank you very much, Senator Humphrey.

Do I understand Congressman Blatnik is in the room?

Senator HUMPHREY. He just left, Mr. Chairman.

Senator KERR. I see our great friend, General Itschner, of the engineers is here.

General, do you intend to say something, or do we hear from another?

General ITSCHNER. Colonel Nauman came from Detroit in order to testify on this project. He is extremely familiar with it. He worked with it for several years. With your permission, I would like to ask that he testify.

Senator KERR. All right, Colonel Nauman, come forward.

In the meantime, we will place in the record at this point a statement of Congressman Henry S. Reuss, of Wisconsin.

(The statement referred to is as follows:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., January 25, 1956.

Hon. ROBERT S. KERR,
Chairman, Subcommittee on Flood Control—Rivers, and Harbors,
Committee on Public Works, United States Senate.

DEAR SENATOR KERR: I am enclosing a statement in support of H. R. 2552, the Great Lakes connecting channels bill, which I should greatly appreciate your bringing to the attention of members of the subcommittee and placing in the official records of the hearings.

Sincerely yours,

HENRY S. REUSS.
Member of Congress.

STATEMENT OF CONGRESSMAN HENRY S. REUSS (DEMOCRAT OF WISCONSIN)

As one of the sponsors of the legislation now before this subcommittee, I very much appreciate this opportunity to present a statement in behalf of H. R. 2552, which authorizes the deepening of the Great Lakes connecting channels beyond Lake Erie.

This bill, I am happy to report, is not a controversial matter. In the last session of Congress, after careful examination by the House Committee on Public Works, it passed the House without debate. Moreover, it is a bill based on the thorough and painstaking research implicit in the extensive and well reviewed survey submitted last year by the Corps of Engineers. It is a bill which is technically, economically, and politically sound.

I wish to underscore the point contained in the engineers' report that the Great Lakes waterways are vital to the expansion of commerce in the heartland of America. In the 6 States bordering the Great Lakes reside 22 percent or nearly one-quarter of the population of the United States. Into this area is clustered a major portion of America's industry and source of raw materials.

The production of steel needed for building America's defenses depend almost entirely on maintaining adequate channels in the Great Lakes, and especially the channels in St. Marys River, Straits of Mackinac, St. Clair River, and Detroit River. It is, therefore, prudent self-interest which should dictate speedy consideration of this legislation.

While I am an enthusiastic advocate of utilizing the St. Lawrence seaway to the full, I should like to call these significant words from the Corps of Engineers report to your attention:

"The evaluated benefits which have been developed herein as a result of the proposed improvement cover only such benefits to Great Lakes commerce and do not include any benefits which will accrue to commerce entering the Great Lakes through the St. Lawrence seaway * * * However, it is believed that the deeper channels proposed herein will result in substantial benefits to the large volume of deep-draft seaway traffic destined to ports on the upper lakes."

The conservative reckoning of the engineers report indicates a favorable ratio of 1.78 to 1 for the connecting channels project. This is figured by comparing savings to shipping and other items on a yearly basis estimated at $7,600,000 to the estimated annual cost of improvements of $4,250,000.

This is the cold hard arithmetic of H. R. 2552, which I want to emphasize is calculated solely on the impact which 27-foot channels will have on the water transportation of only three commodities: iron ore, grain, and stone.

Larger ships with deeper drafts are able to handle larger bulk loads, which in turn means lower unit costs for water transportation with ultimate savings to consumers, operators, and investors. The newer fleet of ships on the Great Lakes is designed to operate at drafts of 25 feet or more. Some of our Great Lakes ships have operated at less than their capacity, awaiting the time that the channels contained in the engineers report have been deepened to the depth of 27 feet.

I submit to this committee that a 27-foot channel in the upper lakes will spur greater commercial and industrial activity which will enhance the economic well-being of a large percentage of America's population and industry. Deeper channels in the upper lakes will not only prove a shipping boon to my community of Milwaukee, but will also serve as a commercial stimulus to a vast region important to America's defense and future prosperity.

In short, the reasons for enactment of this legislationare fundamentally national. The deepening of the connecting channels will open the great industrial and agricultural heartland of America to the economic advantages of deep-draft shipping. Deepening will result in more efficient use of existing shipping and permit the inauguration of new service by larger and faster ships. Deepening will vastly increase the value of the St. Lawrence seaway by making accessible key areas not otherwise reached by deep-water vessels. Indeed, the deepening of the connecting channels is the logical sequel to the seaway itself. Finally, of course, deepening will contribute to the ability of American industry to mobilize quickly in a time of national emergency.

Let us wait no longer to undertake a project which will bring lasting benefits to generations to come. I hope this committee will promptly approve H. R. 2552.

Senator KERR. Colonel?

STATEMENT OF COL. ARTHUR C. NAUMAN, CORPS OF ENGINEERS, DETROIT DISTRICT

Colonel NAUMAN. The report on the Great Lakes connecting channels is submitted in accordance with resolutions of the House Public Works Committee dated September 27, 1951, and June 24, 1953, and resolution of the Senate Public Works Committee dated March 25, 1953.

The connecting channels of the Great Lakes include the waterways between Lakes Superior and Huron, Lakes Michigan and Huron, and Lakes Huron and Erie. They are made up of the St. Marys River, which is 63 miles long, the Straits of Mackinac, the St. Clair River, Lake St. Clair, and the Detroit River, with a combined length of 87 miles.

Subsequent to the construction of the 12-foot channel through Lake George and the St. Marys River a succession of improvements have been made on the connecting channels up to the provision of the existing project depths. The present minimum depths are 25 feet in the downbound channels and 21 feet in the upbound channels.

Minimum depths in 2-way channels in all cases is 25 feet. These depths are with the lakes at their low-water datum. Except for the St. Marys River these channels are navigated without locks. At Sault Ste. Marie there are 4 parallel navigation locks with a lift of 21.7 feet which have been built by the United States Government. There is also a single lock on the Canadian side of the river which was built by the Canadian Government. The total cost of the project to date is $95,570,263 for new work, and $32,507,537 for maintenance.

The principal items of waterborne commerce carried on the Great Lakes are iron ore, coal, grain, stone, and petroleum products. The average annual tonnages for these commodities over a recent 5-year period are: iron ore, 81 million tons; coal, 52 million tons; stone, 22 million tons; grain, 5.8 million tons; petroleum, 9 million tons.

Generally iron ore, stone, and grain move from the upper lake ports to the lower lakes. Coal moves principally from the harbor of Toledo upbound, with some movement out of Chicago. Petroleum products move generally both directions from Chicago and Toledo. Movement of these commodities normally takes place between the months of April and November each year.

The existing project depths in the Great Lakes connecting channels are inadequate to permit many vessels of the Great Lakes fleet to load to their maximum depths except at extremely high lake stages. This situation became more pronounced in recent years because of the marked trend of replacing older vessels with larger and deeper draft vessels. Of some 286 vessels of American registry now operating on the Great Lakes, it is estimated over two-thirds of that total fleet are over 40 years old. These vessels carry approximately one-half of the annual movement of the iron ore.

Because of their obsolescence, maintenance and operating costs of these vessels are comparatively high. Newer vessels in the lake fleet range in draft from 22.4 feet to 26.9 feet, up to 714 feet in length, and 75 feet in width. Difficulties are encountered in navigating the connecting channels because of limited depths, bends and turns in the channels, and in some reaches rather swift currents.

Fogs are experienced at times, which makes it necessary for vessels to anchor until the fog lifts. The bad cross-current in the Amherstberg Channel at the lower end of Ballards Reef Channel makes it difficult for vessels to pass this point at low speed.

The southeast bend in the St. Clair River is difficult to navigate as a sharp reverse curve is combined with a relatively narrow channel for two-way traffic through the bend.

A public hearing was held in Detroit on November 17, 1953, in order to determine the improvements desired by shipping interests and obtain an expression of views by other interested parties. The plan of improvement recommended by the Chief of Engineers provides for a minimum channel depth of 27 feet below low-water datum, with a resulting safety draft of 25½ feet throughout connecting channels. The maximum channel depth that will result would be 30 feet.

These recommended depths vary because of increased allowance for vessel clearance and rock channels over clearance and soft bottom. Additional clearance is required as a result of vessel squat, and operation in exposed water.

In addition to the channels which are being recommended there are also authorized anchorage areas required by the waterways whose depths are being recommended for improvement. They are at Point Iroquois Shoals and Lake Nicolet, both in the St. Marys River.

Point Iroquois Shoals Anchorage is recommended to be deepened to 29 feet and the Lake Nicolet Anchorage to 28 feet. An alternate plan of improvement for the St. Clair River southeast bend provides for an artificial canal in Canada 27.1 feet deep, 700 feet wide and approximately 6 miles long. This channel for two-way traffic would extend in a straight line from the upper end of southeast bend in the St. Clair River to the existing improved channel in Lake St. Clair This would eliminate a hazardous reverse curve which now exists in the bend.

The plan of improvement which is proposed will provide depths in all the connecting channels commensurate with those authorized for the St. Lawrence seaway from Montreal to Lake Erie. The benefits for the project are derived from a more efficient operation of Great Lakes fleet for the transportation of bulk commodities. Such a fleet would effect material savings in the transporting of these commodities.

The total annual benefits to the commerce and iron ore, grain, and stone, as developed from commerce in these commodities, which would benefit directly from increased depths in the connecting channels, would be $9,868,000. To determine the transportation savings comparison was made of the fleet predicted in 1983, operating in the existing channels with the same fleet operating in the improved channels.

This comparison reflected a transportation saving of 15 cents per ton for bulk carriers and 18 cents per ton for self-unloaders. The major portion of the benefits for this project accrue from the more efficient movement of iron ore. However, in developing these benefits it was estimated that only 65 million tons of iron ore traffic would be benefited by the increased depths.

In developing these benefits no projection of tonnage was made for additional commerce likely to develop over the life of the project.

Estimated cost to the United States for new work at 1954 price levels is $110,327,000, exclusive of $27,500 for navigation aids, unless,

and in lieu of further improvement along the existing alignment of southeast bend in the St. Clair River, the cutoff canal would be authorized and constructed. This would result in an additional cost to the United States of $5,491,000, exclusive of $124,000 for navigation aids.

The total cost of the improvement is $115,818,000. The estimated annual benefits are $7,600,000 and estimated annual charges $4,250,000, resulting in a benefit-cost ratio of 1.78 to 1.

The report was referred to the States of Michigan, Minnesota, Wisconsin, Illinois, Indiana, Ohio, Pennsylvania, and New York. These States concur in the plan which is recommended by the Chief of Engineers. The report was also referred to the Bureau of the Budget, and the Departments of Commerce, Interior, Agriculture, and Labor, the Federal Power Commission, and the Public Health Service. These agencies do not in general object to this project. The comments are printed in Senate Document No. 71, 84th Congress, first session.

Thank you, Mr. Chairman.

Senator KERR. Thank you very much, Colonel, for an able and enlightening statement.

Are there others from your Corps, General Itschner?

General ITSCHNER. We have no other testimony, Senator.

Senator KERR. N. R. Danielian, president, Great Lakes-St. Lawrence Association.

Senator MCNAMARA. Mr. Chairman.

Senator KERR. Senator McNamara.

Senator MCNAMARA. I would like to say that Dr. Danielian has probably worked in this area and on this project longer than anybody that I know personally. The first talk I ever heard, which was really a voice in the wilderness, it was back so many years, was Dr. Danielian calling attention to anybody who would listen to the tremendous benefits to the Nation and particularly to the Middle West, of this project. I want you to know that I think he is a great authority. We are very fortunate and happy to have him here today.

Senator KERR. Thank you, Senator. Doctor, we are glad to have you. Will you present your statement.

TESTIMONY OF DR. N. R. DANIELIAN, PRESIDENT, GREAT LAKES-ST. LAWRENCE ASSOCIATION

Dr. DANIELIAN. I appreciate those very kind words, Senator McNamara. We have been fortunate in the fact that so many good people around the country have cooperated and supported our efforts. I think the results are the contribution of many, many people. We are very grateful for their continued cooperation in this effort.

I am president of the Great Lakes-St. Lawrence Association, a group representing a number of States, municipalities, and industries in the Great Lakes area. We have among our membership the States of Minnesota, Wisconsin, and the cities of Milwaukee, Detroit, and many of the principal industries of the Great Lakes area, steel and iron ore, and financial and commercial institutions.

The association has prepared a brochure entitled, "The Connecting Channels—New Horizons for Great Lakes Transportation."

I believe members of the committee have received copies.

Senator KERR. Yes, we have. It will be filed with the committee.

Dr. DANIELIAN. If useful, I would like to submit it for the record.

Senator KERR. It will be retained for the use of the committee.

Dr. DANIELIAN. This document contains the background facts and technical information we desire to present. The purpose of my brief testimony is to summarize two of the more important reasons why these channels should be deepened and then to discuss certain related aspects of this matter.

First, the fact that the deepening of the connecting channels is a technological necessity is apparently conceded by all who have knowledge of the problem. The marked changes in the composition of the Great Lakes fleet, which have already resulted and will further result in larger ships of deeper drafts, require that the channels be deepened, if these ships are to be operated at or near capacity.

Admiral Spencer of the Lake Carriers Association will give the exact facts concerning the size of the ships that are operating on the Great Lakes.

Colonel Nauman has already given the basic facts which support this conclusion. In addition, he has shown that the plan proposed has a favorable benefit-cost ratio of 1.78 to 1 and therefore is practical and economically justifiable.

Second, the deepening of the connecting channels will contribute to the improved position of United States industry in case of mobilization. I refer, of course, to the increased carrying capacity of the Lake fleet, which already is carrying 80 to 85 percent of the iron ore required by the steel industry and to the protection against the possible interruption of the flow of iron ore, grain, and limestone, which could result from the sinking or grounding of a 600- or 700-foot vessel in one of the narrow downbound channels.

It should be noted that at the present time downbound channels are at 25 feet and the upbound channels are at 21 feet. The proposed project will make both upbound and downbound channels 27 feet. So that we would have an alternate route in case of such an accident.

In addition to being a technological necessity, the deepening of the channels, therefore, has a definite bearing on capacity of the United States to marshal its full industrial potential. Whether or not one agrees with the imminence of peril to national security, I do not think that any of us are deluded about the seriousness of the problems which confront us or of the necessity of being prepared. These two reasons alone, I submit, support the conclusion that the deepening of the connecting channels is completely justified from an economic and national interest point of view.

That this is a project of national, rather than local, significance, should require little demonstration. Over 27 percent of the entire waterborne tonnage of the United States and 64 percent of all ton mileage on the inland waterways are carried on the Great Lakes. It is the world's largest and busiest inland waterway.

Entirely aside from the eight States bordering on the Great Lakes, the whole national economy benefits from the mass transportation at low cost of the products of our mines, farms, and factories. These are facts concerning which there is no dispute.

Furthermore, the funds which the Federal Government has appropriated to date have been relatively small, especially when one considers the size and importance of the connecting channels. The

total Federal cost for improvements, including annual operating costs, since 1881, when the first improvement was authorized 75 years ago, has been only $128,593,778. This is less than $2 million per year and figures out to about one one-hundredth of 1 cent per ton-mile of transportation obtained on the Great Lakes.

Is there any other internal improvement of comparable importance which has cost the Federal Government so little?

It is true that the costs of this project are to be entirely borne by the United States, whereas Canada also will benefit. The question may be asked, "Why shouldn't Canada be called upon to bear a share of the cost?" The answer to this is clear and convincing.

In the first place, the traffic carried by the connecting channels is preponderantly of United States origin and destination; secondly, Canada, a country with less than 10 percent of our population and gross national product, has already spent on the connecting channels and canals, between Lake Superior and the Atlantic Ocean the total sum of $398,103,671, including over $113 million on the waterway between Montreal and Quebec. This total is more than 3 times what the United States has spent on the same area ($128,593,778; see exhibit attached).

In addition, Canada has committed itself to an expenditure of $215 million on the St. Lawrence seaway itself, as against our $90 million for 2 locks, and, in the foreseeable future, she will undoubtedly be faced with another expenditure of at least $100 million to increase the capacity of the Welland Canal.

This too is a necessary part of the long-range progressive improvement of the Great Lakes Basin and I hope that the Canadian Government will consider it before too long.

Certainly, as far as the connecting channels project is concerned, our interest is much greater than that of Canada, and, in view of this comparison of past and contemplated expenditures in the basin as a whole, we are hardly in a proper position to call on Canada for a contribution.

Of course, this project raises questions concerning the eventual deepening of the receiving harbors along the Great Lakes to comparable depths. The Corps of Engineers in its report (pp. 55–56) considered this and, in arriving at a favorable benefit-cost ratio of 1.78 to 1, purposely excluded a portion of the total benefits of 27-foot channels to allow for the cost of deepening the harbors. In other words, the deepening of the connecting channels is economically justified without reference to the cost of harbor deepening.

The matter of the harbors is not involved in this authorization and is not before the committee.

Perhaps I may be anticipating some points that may be raised in other forums.

Certain of the questioning by House committee members carried the implication that those of us who supported the seaway are not being quite fair in now asking for the deepening of the connecting channels.

There was much talk at that time, you will recall, about a camel's head under the tent, the implication being that once we got the St. Lawrence seaway we would be up with requests for further authorizations which would amount to a fantastic figure of $2 billion.

Senator KERR. Doctor, this committee is aware of that probability and not adverse to it.

Dr. DANIELIAN. I am glad to hear that, Senator. But the probability is not there because the St. Lawrence seaway authorization was $105 million, and at the same time we did state on the record that this project would cost about $100 million.

I think we are closer to our record than the arguments on the other side. The argument seems to be that we indicated that we would be satisfied with the seaway alone and are not acting in good faith in supporting the present authorization for the connecting channels. As one who has been close to these developments for 15 years, I think I am in a position to set the record straight. From the beginning, all legislative proposals on the St. Lawrence project included the connecting channels. Then in 1953, it was decided to separate them into two distinct packages.

With the Canadian commitment to build an all-Canadian seaway, the only issue before the Congress of the United States in 1953–54 on the St. Lawrence project was whether or not we would participate in the construction of the St. Lawrence seaway—the construction of the seaway had been assured by the Government of Canada—or, to put it differently, whether some of the locks would be on United States soil. On the other hand, the connecting channels work would be needed in any event, with or without the St. Lawrence seaway, and whether or not Canada or the United States built the works at the International Rapids section. We so stated at that time.

Consequently, it was decided to put these two projects on their separate merits, as the issues involved were completely different. While the seaway legislation was pending, we supported the authorization and appropriation for a survey of this project. The present report of the Corps of Engineers is the result of this authorization. It has never been a secret that we aimed and were working for the ultimate improvement of the connecting channels at the same time we supported the separate legislation for United States participation in the seaway.

Our position has always been consistent and it would be a misunderstanding to imply otherwise.

On the contrary, it would be unrealistic to overlook the bearing of the seaway upon the utilization of these channels and the need for their improvement. I am cognizant of the fact that the Corps of Engineers has given its full support to this project on the basis of interlake traffic alone and has not relied upon the relationship of deeper channels to the St. Lawrence seaway. However, as a practical matter, we are going to have a seaway of 27-foot depth as of 1959, and if the States west of Lake Erie are to benefit fully from the seaway, the connecting channels must be deepened to a commensurate draft.

The Budget Bureau has approved this project and the President in his recent budget message referred to "new and expanded programs for the economic growth and well-being of the Nation" and recommended an initial Federal appropriation of $5 million for this project.

The same budget placed the overall cost of deepening the connecting channels at $110.3 million. It is logical to conclude that this program has full administration support.

The proposal to deepen the connecting channels will contribute to our "economic growth and well-being" as a Nation because it is a

technological necessity and will improve the economy of lake shipping; because it is of tremendous national significance; because it will add an incremental element of safety in the flow of raw materials necessary for national security and possibly survival; and, finally, because it will make available to the vast industrial and farm area west of Lake Erie the full benefits of the St. Lawrence seaway.

If this authorization is now approved, and taking into account the time for planning, appropriations, and construction, the earliest date when deeper draft channels will be available would be 1962 or 1963. We therefore earnestly advocate your prompt approval of this legislation.

I have attached to my statement, Mr. Chairman, a tabulation of the contributions of Canada and the United States to the improvement of these channels over a period of years, without including the St. Lawrence project. I would like that made a part of the record as being of historical interest.

Senator KERR. It will be done.

(The table mentioned above is as follows:)

Analysis and comparison of total cost of United States and Canadian Governments of connecting channels in Great Lakes and St. Lawrence River from Duluth, Minn., to Quebec City, Province of Quebec exclusive of the St. Lawrence seaway

Channel or canal	Investment	Maintenance	Total cost
United States:			
St. Marys River	$65,054,520	$27,648,191	$92,702,711
Straits of Mackinac	558,465	7,831	566,296
St. Clair River	3,169,348	1,485,255	4,654,603
Lake St. Clair	4,192,782	1,291,221	5,484,003
Detroit River	22,595,148	2,075,039	24,670,187
St. Lawrence River-Thousand Island section			515,978
Total United States cost	95,570,263	32,507,537	128,593,778
Canada:			
St. Marys River, Ontario	5,595,635	3,699,898	9,295,533
Welland Canal	137,209,794	34,701,008	171,910,802
St. Lawrence River-Thousand Island section			470,000
St. Lawrence canals	58,074,591	44,774,001	102,848,592
Montreal to Quebec City	113,578,744		113,578,744
Total Canadian cost	314,458,764	83,174,907	398,103,671

REMARKS.—United States costs above as of June 30, 1954. Canadian costs as of Mar. 31, 1954, with exception of Thousand Island section which is as of 1949 and Montreal Quebec Channel which is as of Mar. 31, 1955.

Senator KERR. Thank you, Doctor. Is there anything further that you have to say?

Dr. DANIELIAN. No, Mr. Chairman.

Senator KERR. Admiral Spencer?

STATEMENT OF LYNDON SPENCER, PRESIDENT, LAKE CARRIERS' ASSOCIATION

Admiral SPENCER. I am Lyndon Spencer and I am chairman of the Lake Carriers' Association, with offices in Cleveland, Ohio. I appear here on behalf of the 27 companies having membership in the association.

These companies operate on the Great Lakes a total of 312 vessels having a carrying capacity of 3,450,700 gross tons. I appreciate this

opportunity to talk for just a few minutes about the connecting channels of the Great Lakes and their importance to transportation, to the national economy, and to any future defense efforts.

There have been changes in Great Lakes transportation since the day when Henry Clay, in speaking of a proposal to build a canal around the falls in the St. Marys River, told the Senate of the United States that it was—

> a work quite beyond the remotest settlement of the United States, if not in the moon.

For once Henry Clay was wrong. In spite of his objections the canal was finally built and all the Great Lakes were opened up to commerce.

While the five Great Lakes are of themselves navigable, it has been found advisable in the past to make certain improvements in the connecting waters and channels to the end that the raw materials so abundantly provided by nature in the basin of the Great Lakes and so urgently needed in the development and protection of the whole country, might move freely and cheaply in ships over the entire waterway. Improvements have been made in the St. Marys River, the St. Clair River, Lake St. Clair, the Detroit River, and in the Straits of Mackinac.

As the country has grown and developed, and as the demand for basic commodities has continually increased, the vessels used on the Great Lakes have been built larger and larger. Most of the time the ships can load more deeply than the connecting channels will permit with safety, and consequently they must run uneconomically with less than full cargoes.

The basic project which provided channels adequate for vessels drawing 20 feet when the lakes were at datum was adopted in 1892. At that time commerce through the St. Marys River was about 11 million tons annually and the average iron-ore cargo was about 1,750 tons. By 1929, when the existing project was being considered, traffic through the St. Marys River had increased to 92 million tons and the average cargo of iron ore was approximately 9,600 tons.

In 1953, when the most recent survey was authorized, traffic through the St. Marys River reached 128½ million tons and cargoes of iron ore averaged around 12,000 tons.

All during World War II and the Korean difficulty, the operators of vessels on the Great Lakes were under constant pressure from several agencies of the Federal Government to increase the carrying capacity of their fleets to meet the requirements of industry for basic commodities in any possible emergency.

This they did at a cost of from $6 million to $7 million per vessel for each of the 25 new ships built during the past 5 years. Now they find that these new vessels often must run at an economic loss because the connecting channels are not deep enough to permit full loads.

The connecting channels are presently maintained so as to provide a swept depth of at least 24.8 feet in the St. Marys River and 25 feet in the other downbound channels at low-water datum.

Low-water datum is a reference mark used by the Corps of Engineers. It is different for the several lakes but in all cases represents an average lake level. Usually the water levels are somewhat above low-water datum but occasionally they go down to, or even below these marks.

The depth of water available is not the depth to which vessels can load. Allowances must be made for exposure, squat, wind, clearance, and other factors. The Lake Carriers' Association has considered for many years that a total allowance of 2.5 feet is the very least that can be used with safety. When this allowance is subtracted we find that when lake levels are at datum the maximum possible drafts are 22.3 feet in the St. Marys River and 22.5 feet in the other downbound channels.

It should also be noted that where separate channels are provided for upbound traffic, a depth of water of only 21 feet is provided at low-water datum. Should the separate downbound channels ever become blocked, downbound vessels would have to use the upbound channels and would be limited to a draft of 18.5 feet if the lakes levels were at datum.

Among the vessels enrolled in the Lake Carriers' Association are 251 iron-ore carriers. Of these, 53, or nearly 21 percent, are authorized by their load line certificates to load to depths greater than 22.3 feet.

The loss in carrying capacity of these vessels for an entire season would be over 3 million tons if the water levels were at datum, better than 1½ million tons with a foot more water and more than a half million tons with 2 feet of water above datum.

These are losses in carrying capacities, and they are also economic losses because a ship can run with a full load at just about the same cost and in the same time as with only a partial load. Economies in transportation are reflected in the cost of the transportation and redound to the advantage of everyone who uses the products or the things made from the products carried over the lakes.

While it is true that the water levels on the Great Lakes have been well above datum for the past several years, it is equally true that the peak in the present cycle was reached in 1952.

A gradual lowering of the lake levels can now be expected for some years to come. No one can tell how long this decline will continue or how low it will go but, as it has in the past, it may well take the water levels right down to datum within the next few years. It is a safe prediction that in 1956 the loss of carrying capacity in the existing fleet, because of insufficient water in the critical channels, will be more than a million tons.

Aside from the economic loss, the loss in carrying capacity in itself can be a very serious matter. In any future emergencies the defense of this country will require every last ton of iron ore that can be carried down the Great Lakes. None of us wants to see another conflict but if it should come, none of us would want to see any shortage in the munitions of war because ships could not carry full loads of iron ore.

Many of the present iron ore carriers are approaching obsolescence. By 1960 nearly 60 percent of the present fleet will be 50 or more years old and will require replacement. Experience during the recent building program has shown that replacements will be made with ships averaging at least 650 feet in length, with a beam of 70 or more feet and with authorized midsummer draft of approximately 25.5 feet.

As the old vessels pass out of the picture and the new and larger vessels come into use, the potential loss of carrying capacity for the fleet as a whole will become greater unless the connecting channels are deepened.

It should also be mentioned that 16 new, large vessels including the longest ship now in operation on the Great Lakes have been added recently to the Canadian fleet. These ships, too, must be suffering a loss in carrying capacity in the present connecting channels but we do not presume to present any figures on them. We do submit, however, that they should be given consideration because they will augment the fleet of United States ships in any future emergency, just as they have in the past.

In the report of their most recent study of the Great Lakes connecting channels, the Corps of Engineers points out that the proposed work is necessary to serve adequately the fleet of existing and prospective Great Lakes vessels.

No consideration of the foreign trade moving into the Great Lakes after completion of the St. Lawrence seaway was necessary to justify the cost of the proposed changes to the connecting channels. But if the connecting channels are not deepened, fully loaded vessels coming through the seaway will not be able to proceed beyond Lake Erie. Such great ports as Detroit, Milwaukee, Chicago and Duluth, to mention only a few, will be unable to realize their full potentialities for world trade until the work proposed by H. R. 2552 is accomplished.

In 1928 the Board of Engineers for Rivers and Harbors said:

> The Great Lakes and their connecting waterways are the most important unit of inland water transportation in the world. Savings in the cost of such transportation affect either directly or indirectly the whole population of the United States. Conservative estimates show that the entire amount spent by the United States for new work and maintenance upon channels and harbors of the Great Lakes is returned annually as savings in reduced transportation costs.

That statement, in all its parts, is as true today as it was 28 years ago.

We believe that the constantly increasing traffic on the Great Lakes, which can be carried more economically in larger vessels, and the necessity of providing now for an all-out effort in times of national emergency, require further improvements in the connecting channels.

We also believe that the recommendations of the Corps of Engineers for deepening so as to provide a safe draft of 25.5 feet are justified now and will be adequate for many years to come. To accomplish the recommended work will take 5 years at the very minimum. So we urge Congress to approve the proposed project.

Thank you.

Senator KERR. Thank you Admiral Spencer. Are there questions of the Admiral?

(No response.)

Senator KERR. The next witness will be Mr. John C. Beukema, president, Great Lakes Harbors Association, Muskegon, Mich.

STATEMENT OF JOHN C. BEUKEMA, PRESIDENT, GREAT LAKES HARBORS ASSOCIATION, MUSKEGON, MICH.

Mr. BEUKEMA. Mr. Chairman and gentlemen of the committee, your witness is John C. Beukema of North Muskegon, Mich. I am appearing in behalf of my associates in the Great Lakes Harbors Association, which is an organization of the several municipalities having ports on the Great Lakes and port commissions which I am presently serving as president. We begin with the premise anything

which changes the physical characteristics of the country and which at the same time promotes the economic welfare of a substantial number of the population, is a proper concern of Congress.

We wish to express our approval and support of the recommendation of the Chief of Engineers with respect to deepening channels in the upper Great Lakes, namely in the Detroit River, Lake St. Clair, St. Clair River, and St. Marys River, to a minimum depth of 27 feet.

May we briefly present two principal reasons therefor: First, deepening is essential in the interests of our own domestic commerce, particularly in the carriage of bulk commodities such as iron ore, limestone, coal, grain, and petroleum products. And second, deepening is essential to the completion of the St. Lawrence seaway project which was authorized by Congress in 1954, and the development of foreign trade in the upper Great Lakes area.

The project will extend navigation to the larger oceangoing vessels, that is vessels up to 10,000 tons, from the head of Lake Erie to ports like Chicago, Detroit, Milwaukee, Duluth, Muskegon, and other upper lake ports.

Mr. Chairman, the bulk of my statement here, formal statement, is largely repetitive of what has been said by the other distinguished witnesses who have preceded me.

With the consent of the chairman of the committee, I would like to present it for inclusion in the record so as to conserve your time.

Senator KERR. Thank you very much, Mr. Beukema. Are there any questions?

Senator MCNAMARA. I have none.

Senator KERR. We thank you for your statement and for your courtesy in the matter.

(The statement referred to is as follows:)

TESTIMONY OF JOHN C. BEUKEMA, MUSKEGON, MICH., PRESIDENT, GREAT LAKES HARBOR ASSOCIATION

Gentlemen, your witness is John C. Beukema, of North Muskegon, Mich. I am appearing on request of my associates in Great Lakes Harbors Association, an organization of the several municipalities with ports on the Great Lakes, which I am currently serving as president.

We wish to express our approval and support of the recommendations of the Chief of Engineers, United States Army, in respect to deepening channels in the upper Great Lakes; viz, Detroit River, Lake St. Clair, St. Clair River, and St. Marys River, to a minimum depth of 27 feet.

May we briefly present two principal reasons therefor:

(1) Deepening is essential in the interest of our own domestic commerce, particularly in the carriage of bulk commodities such as iron ore, limestone, coal, grain, and petroleum products.

(2) Deepening is essential to the completion of the St. Lawrence seaway project authorized by Congress in 1954 and the development of foreign trade in the upper Great Lakes area. The project will extend navigation by the larger oceangoing vessels, up to 10,000 tons, from the head of Lake Erie to ports like Chicago, Detroit, Milwaukee, Duluth, Muskegon, and other upper lake ports.

As the gentlemen of the committee are aware, the most important waterborne commerce in America, if not in the world, is the carriage of iron ore, grain, coal, and stone on the Great Lakes. The steel industry was built on this movement. The manufacture of steel and steel products is this country's basic industry.

But the fleets that have been carrying these several commodities are rapidly becoming obsolete. They are being replaced by vessels with greater draft and carrying capacity; faster ships; with resultant economies in operation. The bulk carrier that handles 8,000 to 12,000 tons is being replaced by ships carrying 20,000 tons, and as high as 26,000 tons. Over 66 percent of the present fleet of approximately 300 vessels is over 40 years old. About 60 of the newer and

larger ships are now in operation, with more building. Some of these are converted C–3's and C–4's. The savings in transportation costs when they are loaded to full capacity run about 15 percent.

Present channels are 21 feet upbound and 25 feet downbound. At low water, vessels cannot be loaded safely to draw more than 22.5 feet (downbound). Since we have ships that draw, when fully loaded, as much as 26.9 feet, it is apparent that these vessels cannot be operated at maximum efficiency. Bigger ships, deeper channels, and lower carriage costs are complementary. On the high seas we are scrapping or putting into mothballs the older slower ships that can no longer compete. On the Great Lakes we face the same problem in respect to bulk carrier obsolescence.

By way of illustration, let me describe the George M. Humphrey, completed in 1954 by American Shipbuilding Co. at Lorain, Ohio. It has a length of 710 feet, with 19 hatches, 17 feet fore and aft by 54 feet across, with a depth of 37 feet, 6 inches. Its beam is 75 feet and it draws 25.5 feet when fully loaded at 24,000 tons. Obviously it cannot handle a full load in Detroit river channels.

I recall that the late John Hays Hammond once told Congress that the difference between American civilization and Chinese civilization was exemplified by a cost of 1 cent per ton-mile on our American railroads versus a transportation cost of $1 a ton-mile on a Chinese coolie's back. Progress, therefore, depends on constantly reducing the cost of moving goods from producer to consumer.

May I further point out that the cost of steel affects every American citizen on almost everything he buys outside of food. Transportation costs are a vital item in the cost of steel. It isn't the cost of ore at the mine, it is the cost of ore at the furnace mouth that is material.

Great Lakes waterborne commerce aggregated over 243 million tons in 1953, excluding foreign commerce. On the average, iron ore runs about 80 million tons a year, limestone 20 to 25 million, coal over 50 million, petroleum and its products 9 to 10 million, and grain, 6 million, a total of better than 170 million. The question is asked:

"Will the flow of commerce in these basic commodities be maintained over the next 30 to 50 years, so as to warrant this expenditure of better than $100 million?"

With the growth of population in the Great Lakes area there is every reason to believe that the flow will not only be maintained at present levels but will be substantially increased. Critics point to declining reserves of hematite ore in the Lake Superior region and predictions that present rate of consumption will exhaust these reserves in about 15 years. The United States Bureau of Mines made a similar prediction in 1917, but new discoveries have steadily expanded reserves. Moreover any reduction in hematite shipments will be more than made up by shipments of taconite, produced from the apparently exhaustless reserves of hard rock ore in this area.

Grain shipments are of course conditioned on foreign market conditions. Coal is certain to increase—if for no other reason than the rapid increase in electric power capacity. Petroleum products will move in substantially greater volume, as traffic demands and demands for oil for heating purposes, both domestic and industrial, increases. Shipments of limestone will increase as demand for ore and taconite increases. Great Lakes waterborne traffic is expanding at an annual average rate of about 5 percent and there is every reason to believe it will continue to so expand. This relates solely to domestic traffic, not to any increase the seaway may bring.

Of equal importance is the foreign commerce generated in the upper Great Lakes region. Also intercoastal commerce. May I point out that Great Lakes area produces one-third of all the manufactured product made in these United States, and that together with its tributary upper Mississippi Valley States, it produces 34 percent of all agricultural product. Visit New York terminals and see where the goods that move in foreign commerce originate or are consigned to. I am sure that Congress, when it enacted the Wiley-Dondero bill, had no intention of building the seaway only to Toledo but envisaged the opening of ports like Chicago, Detroit, Milwaukee, and Duluth to this trade as well. The United States has always maintained the channels in the Detroit River, et al., without reference to Canada, possibly because Canada built the Welland Canal at a cost of $132 million without calling on us for aid.

Opening the ports of the upper lakes to the larger vessels engaged in foreign commerce will be a boon, not only to the ports themselves, but to the entire Midwest. The hinterland of Chicago, Milwaukee, and Duluth, the area they serve, extends back to the Rockies. Packing house products from Omaha and Kansas City will move through these ports. In other words, the farmers and the

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industries of our Western States are as deeply interested in world commerce as residents of lake ports. This is in no sense a sectional project.

Moreover this improvement is definitely in line with the established policies of Congress for 80 years or more.

Our economy is sustained by developments of this character, even when made in specific regions. For instance, the present industrial development of the South is creating a demand for durable goods that is making the entire country prosperous. Industrialization of the Pacific coast had a like effect. In the same manner, the deepening of these channels, with the demand for larger vessels and lower cost of carriage which it will produce, will bring about the continued expansion this country needs in order to keep the wheels of industry turning and people employed.

Mr. BEUKEMA. Might I also present a statement for inclusion in the record by Capt. W. N. Hemmick, port director at Muskegon, Mich.

Senator KERR. Yes. It will be included in the record.

(The statement is as follows:)

STATEMENT OF W. N. HEMMICK, HARBORS DIRECTOR FOR GREATER MUSKEGON CHAMBER OF COMMERCE

Gentlemen, we appreciate the opportunity of presenting a statement for your committee's consideration. We support the United States engineers project for deepening the connecting channels of the Detroit River, St. Clair River, St. Lawrence, River, and Lake St. Clair, maintaining a minimum depth of 27 feet. We believe that this project is essential in order that the St. Lawrence seaway may reach its full potential.

Authoritative estimates of the seaway use are all in agreement that its greatest potential is in allowing deep-draft vessels with bulk cargos to reach the Midwest. Estimates projected cannot be fully realized until the deepening of these connecting channels is completed.

Since the advent of the seaway legislation, rapid strides have been made in the advancement of foreign commerce to the Midwest using the limited channels presently available. The general-cargo movement has been increasing far more rapidly than original estimates considered possible.

Although the annual tonnage report is comparatively small during the past 5 years, we have witnessed a climb in this tonnage of over 200 percent. In developing our own harbor, we have been able to see the practical applications of various commodity movements from the Midwest. We have noted a number of items, both import and export, that could not have reached the Midwest manufacturer or his overseas market in a competitive price range without reduced transportation costs provided by direct water-carrier service to overseas markets.

There have been many hypothetical arguments propounding the limited usage to which the seaway could be put. Principal among these is the time element concerned with our export commerce. Based upon present service to overseas ports-of-call we have found that a shipment leaving Muskegon for Germany, for example, will reach its destination at approximately the same time utilizing a direct water route as compared to the land-water route through a seaboard port. The resultant savings to the shipper are in the neighborhood of 30 to 40 percent.

We are all aware of the narrow margin of profit in the competitive world markets. Certainly these savings will do much to place our industry on a competitive basis with foreign competition in overseas markets. By the same token, reducing industrial costs of freight rates involved with necessary import commodities reduces the cost of producing the product.

Lake Michigan's geographical position as a distribution point in the United States must not be limited in its seaway capacity if the full benefit of the seaway is to be realized. Lake Superior as a correlating center for grain and bulk cargo shipments must be included.

Basically there is the fundamental concept of the entire seaway project. Our Midwest has developed industrially and agriculturally to one of the richest areas of our country. The seaway will provide the means to continue this development above and beyond anything hitherto dreamed of.

The connecting channels of the Detroit River, St. Clair River, St. Lawrence River, and Lake St. Clair are essential. The St. Lawrence seaway will not be complete until their channel depths are maintained throughout the Great Lakes at a uniform depth of at least 27 feet.

Senator KERR. Mr. William J. Rogers, director, port of Cleveland.

STATEMENT OF OLIVER A. REYNOLDS, VICE PRESIDENT, CLEVELAND CHAMBER OF COMMERCE, CLEVELAND, OHIO

Mr. REYNOLDS. Mr. Rogers is delayed. His train is late. I would like to speak in his place. I represent the Cleveland Chamber of Commerce. Mr. Rogers is the port director.

Senator KERR. Your name?

Mr. REYNOLDS. I am Oliver A. Reynolds, vice president of the Cleveland Chamber of Commerce.

Senator KERR. Very good, Mr. Reynolds. Do you have Mr. Rogers' statement?

Mr. REYNOLDS. No, sir; I haven't his statement. I have a statement of my own

Senator KERR. Very well. You may proceed.

Mr. REYNOLDS. I am Oliver A. Reynolds. I am vice president of the Cleveland Chamber of Commerce—an organization of some 5,000 members which has represented Cleveland business interests since 1848. I appear before you in support of legislation which would make it possible to deepen the Great Lakes connecting channels in the interest of commerce and navigation.

Cleveland, Ohio, is the headquarters for a majority of the Great Lakes shipping companies. During the recent national emergencies, the United States Government requested Great Lakes shipping companies to enlarge their fleets in order to transport greater quantities of raw materials needed in connection with the national defense effort.

Many new vessels have been built; however, these larger vessels cannot operate with full cargoes in periods of low water levels on the Great Lakes. These periods of low water occur every few years, and as yet no way has been developed to regulate the lake levels. If the lake levels should be low during a national emergency, the loss of vessel carrying capacity might be very serious to the Nation because Great Lakes carriers play an important role in supplying raw materials to the manufacturers of iron and steel products.

In addition to the movement of raw materials between Great Lakes ports, Cleveland is interested in having the connecting channels deepened in order that cargoes moving between Great Lakes ports and foreign countries may be transported in the largest size vessels which will be able to enter Lake Erie when the St. Lawrence seaway is completed.

If all vessels traveling the St. Lawrence seaway are able to move freely from lake to lake a great many more overseas general-cargo vessels will be available to make calls at all of the Great Lakes ports than would be the case if deep draft vessels could travel only as far as Lake Erie ports.

Cleveland business interests are convinced that unless the connecting channels are deepened both interlake and foreign shipping will suffer and the general development of the entire Great Lakes area will be retarded.

We have been advised that a period of at least four full working seasons, of 8 months, after the date of initial appropriation of construction funds will be required to complete work on the connecting channels.

Therefore, unless this project is authorized at this session of Congress, the through lake channels will not be ready for deep-draft

vessels until long after the St. Lawrence seaway is completed to Lake Erie. Clevelanders would like to see all Great Lakes ports enjoy the same water transportation opportunities, and we hope that the Public Works Committee will authorize this project so that funds to start this project may be requested of Congress and made available in 1956.

The Cleveland Chamber of Commerce appreciates this opportunity to appear before your committee in support of this very important improvement.

Senator KERR. Thank you, Mr. Reynolds.

Mr. Sterling St. John, director of the port of Detroit.

STATEMENT OF STERLING ST. JOHN, JR., EXECUTIVE DIRECTOR, PORT OF DETROIT COMMISSION

Mr. ST. JOHN. Mr. Chairman, gentlemen, my name is Sterling St. John, Jr. I am executive director of the Port of Detroit Commission. This commission was created in 1933, under the Michigan Port District Act of 1925. The Detroit port district is coterminous with Wayne County and includes such commercial and industrial waterfront communities as Dearborn, Ecorse, River Rouge, Riverview, Wyandotte, and Trenton, in addition to Detroit proper.

The Port of Detroit Commission wishes to have recorded its unqualified support of action to deepen and improve the channels in St. Mary's River, Straits of Mackinac, St. Clair River, Lake St. Clair, and Detroit River, to a controlling depth of 27 feet.

Despite its present draft restrictions of 25 feet downbound and 21 feet upbound, the Detroit River is by far the heaviest tonnaged waterway in the world. Compilations of the Corps of Engineers show that more than 140 million short tons of foreign and domestic merchandise, carried in some 22,900 vessel passages, each year, utilize the Detroit River to reach their destinations.

For 1953, the port of Detroit district of Detroit shared in this waterborne traffic in the amount of more than 25 million tons, thus ranking Detroit among the top tonnage ports of the country.

Not only will the deepening of the channels connecting the Great Lakes permit the utilization of larger lake carriers with corresponding transportation savings for the raw materials of industry but, for the ocean freighters as well, the economies of larger vessels will be available to Detroit and the upper lake ports.

In a recent economic study of the Detroit port area, it was concluded that within 10 years the ocean commerce of the port would increase tenfold to a million tons a year, with transportation savings of approximately $14 million to shippers. Aside from these savings, new wealth brought into the Detroit area by this added tonnage is estimated at $27 million.

These benefits will extend far beyond the immediate port limits of Detroit, as the industries and people of the hinterland will gain in direct and indirect income in proportion to their participation in this traffic. Both the Port of Detroit Commission and the communities within the port district have long been identified with support for the St. Lawrence seaway. With a metropolitan population of 3.5 million and one of the largest industrial concentrations in the country, the Detroit area depends to a vital degree upon the water transport of its commerce to all parts of the free world.

Detailed economic justification for the connecting channels project has already been presented to this committee by the Corps of Engineers. The Port of Detroit Commission concurs in these findings and respectfully requests that full and favorable consideration be given to the connecting channels project by this committee and this Congress.

Senator KERR. Thank you very much, Mr. St. John, for your statement.

Mr. Harry C. Brockel, director, port of Milwaukee.

STATEMENT OF HARRY C. BROCKEL, DIRECTOR, PORT OF MILWAUKEE, WIS.

Mr. BROCKEL. Mr. Chairman and members of the committee. I represent the Great Lakes Compact Commission of the State of Wisconsin, the Governor's seaway committee of the State of Wisconsin, and the board of harbor commissioners, city of Milwaukee, Wis.

This statement is offered on behalf of the State of Wisconsin and the city of Milwaukee, Wis. The State of Wisconsin, by action of the State legislature, by action of its Great Lakes Compact Commission, by action of the Governor's seaway committee, and by action of Governor Kohler, strongly supports the legislation under consideration by your honorable committee. The city of Milwaukee, by action of its common council and the board of harbor commissioners, desires also to record its vigorous support of this legislation.

The proposal before you presents a national rather than a regional problem although it is, of course, of intense interest to the maritime enterprises of the Great Lakes area. The present critical international situation has led to a national policy aimed at steel production of 160 million tons per year compared to about 110 million tons, present annual capacity. The objective of greatly increased steel capacity is a major national-defense consideration. Whether or not it is achieved will depend in large measure upon the efficiency of bulk steamship operations on the Great Lakes and this, in turn, will largely be controlled by channel capacity.

The impact of larger and deeper ships, both in our Great Lakes and ocean merchant marine, will progressively require a systematic deepening of major ocean harbors, inland waterways, and Great Lakes channels. In our opinion, Congress should regard this as a technological advance required by changing trends in lake and ocean shipping.

New shipping requirements on the Delaware River, in New York Harbor, on the gulf coast, and in other localities have been recognized by Congress. The trend in world shipping is constantly toward larger and deeper vessels, with greater depth of channel required to accommodate them. The newest types of petroleum tankers, for example, carry up to 40,000 tons of cargo in a single vessel and require channel drafts of 40 to 45 feet in principal world harbors.

The composition of the postwar fleet on the Great Lakes has been changed greatly by the addition of many new and larger vessels. These new ships range in size from 640 feet to 700 feet or more in length, and are designed to operate at drafts of 25 feet or more.

The steamer *Joseph H. Thompson*, with an overall length of 714 feet, is the third longest vessel in the American merchant marine.

Since it was commissioned for Great Lakes service late in 1952, this ship has operated at 80 percent or less of its cargo capacity because of draft limitations. When the Great Lakes drop to lower levels, the carrying capacity of the *Thompson* and many other modern postwar freighters is further reduced because of insufficient depth in the connecting channels.

The Congress is considering appropriations for deepening 31 miles of the Delaware River, at an estimated cost of $87 million, principally to serve the new Fairless mill of the United States Steel Corp. For about $25 million more, the St. Clair River, Detroit River, St. Mary's River, and shoal areas in the Straits of Mackinac can be deepened to accommodate deep-draft shipping on the Great Lakes, including large lake vessels now operating, and deep-draft ocean ships scheduled for St. Lawrence seaway operation beginning in 1959. The deepening of the connecting channels of the Great Lakes will benefit all of the States in the Great Lakes Basin and the economy of the entire country. The Great Lakes region is the most vital industrial and agricultural region of the world, and improved navigation facilities for this area are completely justified by the great economic benefits which will follow in their wake.

Senator KERR. I wonder if you would amend that statement, that the Great Lakes region is one of the most vital industrial and agricultural regions of the world?

Mr. BROCKEL. Senator, I would like to amend it to include Oklahoma.

Senator KERR. Very good. In other words, you regard Oklahoma as a part of the Greater Great Lakes area?

Mr. BROCKEL. Occasionally, sir, we are privileged to serve some traffic from Oklahoma through the port of Milwaukee. Therefore we think you are within our great orbit.

Senator KERR. Very good. I am glad to have that made clear for the record.

Mr. BROCKEL. The Great Lakes and their connecting channels form a natural transportation highway which has contributed greatly to the strength of North America and to the development of our country. The strong industrial economy of the Great Lakes region is predicated upon low freight rates for the transportation of industrial raw materials. Vessel owners have tried to maintain low freight rates on bulk cargoes by increasing the carrying capacity of their ships and by using more efficient power to permit more trips per season. Provision should be made to permit the modern postwar fleet of lake ships to operate at their maximum capacity and to meet transportation demand at traditionally low freight rates with great resulting economic benefit to the Nation.

Shipowners since World War II have invested private funds amounting to nearly a quarter of a billion dollars in modernization and expansion of the Great Lakes fleet. Public and private interests in the region are preparing to expend many millions in preparing harbors and port facilities to accommodate prospective St. Lawrence seaway traffic. The National Government has an obligation to maintain these arteries of water transportation to full capacity and to full efficiency, just as we concern ourselves with other modes of transportation in the public interest. No Federal subsidy is provided for domestic shipping. The only assistance required of Government by

the domestic fleets on the Great Lakes is the provision of a modern highway.

In 1953, the United States waterborne commerce on the Great Lakes amounted to 256,250,000 net tons, of which the overwhelming proportion was domestic traffic. Domestic cargoes on the lakes amounted to 209,756,000 tons, equal to 82 percent of the total. The remaining 46,494,000 tons consisted largely of Canadian traffic, with a small but rapidly growing volume of overseas traffic. The foreign commerce of the Great Lakes moving through American ports represents significant movements of raw materials and finished goods, just as vital to our economy as the domestic commerce on these waterways. The huge volume of traffic to be served by deeper connecting channels emphasizes the importance and the need for authorization of this project now.

The changing technology of shipping and the growing commerce of an expanding Nation justify a change in the national policy to provide deeper draft channels in our principal ocean harbors and in the Great Lakes. The Great Lakes region supports such a national policy, but expects and demands reasonable participation in any national program of modernization of shipping channels.

In summary, there are four compelling reasons for immediate deepening of Great Lakes connecting channels:

(1) Deepening of the channels will provide increased vessel capacity of definite economic benefit to Great Lakes shipping and the industries which it serves.

(2) The improvement is required in the interest of national defense, and will provide improved safety of operation for lake shipping.

(3) The present limitations of upbound channels in the Great Lakes system upstream from Detroit will not permit movement of Labrador ore in deep draft vessels to Detroit or points upstream. It is essential that this ore movement be extended to all principal ore ports west of Lake Erie.

(4) The construction of the St. Lawrence seaway project by the United States and Canada is well underway. The 2,400-mile highway of water transportation between the Atlantic and the westerly reaches of the Great Lakes will be seriously handicapped if 27-foot shipping is operative only to Lake Erie following the opening of the seaway. The States of Wisconsin, Minnesota, Michigan, Illinois, and Indiana would be definitely prejudiced in their utilization of the Great Lakes-St. Lawrence route unless a uniform 27-foot depth of navigation prevails throughout the system.

The State of Wisconsin has many major and minor ports on Lake Superior and Lake Michigan, and our State urges that deep draft channels be provided into Lakes Superior and Michigan to serve modern shipping demands and to permit these ports to function at full capacity and efficiency.

It is respectfully requested that resolutions adopted by the Wisconsin Legislature and the Common Council of the city of Milwaukee be inserted by your honorable committee in the record of these hearings as evidence of official support from the agencies which I represent. As vice chairman of the Great Lakes Commission, an interstate compact body of the five Great Lakes States, may I also direct your attention to the resolution in support of this legislation recently adopted by

this interstate group representing the official interests of a major portion of the Great Lakes Basin.

The interests which I represent were highly gratified by the thorough and comprehensive study of the connecting channels project by the United States Corps of Engineers. We were, of course, highly gratified by the passage of H. R. 2552 by the House of Representatives on August 1, 1955, without opposition of record. We hope that this measure or Senate bills to achieve the same objective will have the prompt and favorable consideration of your honorable committee.

The Great Lakes Compact Commission was created by the 1955 Wisconsin Legislature to succeed the Wisconsin Deep Waterways Commission, which testified in support of this legislation before the Public Works Committee, House of Representatives.

The Great Lakes Compact Commission is a statutory commission of the State of Wisconsin created by the Wisconsin Legislature to promote the St. Lawrence seaway and to study cooperatively with other States the water resources problems and potentials of the Great Lakes region. Wisconsin is 1 of 5 States joined by interstate compact to work jointly in the field of Great Lakes water resources and potentials.

The Governor's seaway committee consists of 31 citizens, representing agriculture, industry, veterans groups, and civic interests. It was appointed by Governor Kohler to promote Wisconsin support of the St. Lawrence seaway project, and has received the further assignment of developing support for the deepening of Great Lakes connecting channels.

The board of harbor commissioners, city of Milwaukee, is a municipal commission, created by the Wisconsin Legislature. It has the responsibility of planning, developing, and operating modern municipal port facilities for the port of Milwaukee and of promoting the commerce of the port of Milwaukee. It has been active in the promotion of the St. Lawrence seaway project, deepening of lake connecting channels and general development of the economic potential of the Great Lakes region.

Thank you.

Senator KERR. Thank you, Mr. Brockel, for a very good statement.

(The document referred to above is as follows:)

[Certified copy of resolution]

RESOLUTION REGARDING FEDERAL LEGISLATION AND APPROPRIATIONS TO DEEPEN CONNECTING CHANNELS OF THE GREAT LAKES

Whereas the Governments of the United States and Canada are now engaged in the construction of the St. Lawrence seaway project, which, when completed in 1959, will open the port of Milwaukee and other cities of the Great Lakes to deep draft ocean navigation, with great benefits to the economy of the entire midcontinent area and to national defense; and

Whereas the St. Lawrence seaway project will provide 27-foot navigation only to Lake Erie, and the connecting channels of the Great Lakes in the Detroit River, St. Clair River, Straits of Mackinac, and St. Mary's River will require deepening in order to bring the full benefits of the St. Lawrence seaway project and deep-draft navigation to the ports of Lake Huron, Lake Michigan, and Lake Superior; and

Whereas entirely aside from the requirements of the St. Lawrence seaway project, the deepening of Great Lakes shipping channels is timely and necessary to utilize to full capacity the many large vessels which have entered service on the Great Lakes recently, representing an investment of hundreds of millions of

dollars, and which are now unable to operate at full capacity due to channel depth limitations; and

Whereas the deepening of Great Lakes connecting channels will add to the efficiency of lake and ocean shipping and will confer great economic benefits on the commerce of the Great Lakes and of the entire Middle West, and is consistent with the trend toward deep-draft shipping and the substantial deepening of seaboard harbors at many localities; and

Whereas congressional legislation for this purpose should be given high priority so that the deepening of Great Lakes connecting channels may be completed in time to coincide with the completion of the St. Lawrence seaway project: Now, therefore, be it

Resolved by the Common Council of the City of Milwaukee, Wis., That this body hereby declares its vigorous support for legislation to authorize the deepening of Great Lakes connecting channels and the appropriation of funds for that purpose by the Congress; and be it further

Resolved, That the Senators and Representatives from Wisconsin be requested to exert their best efforts to secure the passage of such authorizing and appropriating legislation by the 84th Congress; and be it further

Resolved, That the Board of Harbor Commissioners and other interested city officials and departments be authorized by this Common Council to take all steps necessary to further the progress of connecting channels deepening legislation, and to collaborate with all other ports, associations, and interests working toward this end; and be it further

Resolved, That certified copies of this resolution be transmitted by the city clerk to the President of the United States; to the Senators and Members in Congress from the State of Wisconsin; to the Public Works Committee, House of Representatives; to the Commerce Committee, United States Senate; and to the Chief of Engineers, United States Army.

OFFICE OF THE CITY CLERK,
Milwaukee, Wis., June 28, 1955.

I hereby certify that the foregoing is a copy of a resolution adopted by the Common Council of the City of Milwaukee on February 8, 1955.

[SEAL] STANLEY J. WITKOWSKI,
City Clerk.

[State of Wisconsin—In Senate—Joint Resolution No. 56, S.—April 7, 1955—Introduced by Senator Rogan—Adopted]

JOINT RESOLUTION Memorializing Congress to enact legislation deepening the connecting channels in the Great Lakes in order to provide the full benefits of the St. Lawrence Seaway Project

Whereas the United States of America and the Dominion of Canada are now constructing the St. Lawrence Seaway Project, scheduled for completion in 1959, which will open the ports of the state of Wisconsin to deep-draft ocean navigation, with great benefits to Wisconsin port communities, to this state, and to the entire nation; and

Whereas the St. Lawrence Seaway Project will bring 27-foot navigation only to Lake Erie and in order to bring the full benefits of the project to the ports on Lake Huron, Lake Michigan, and Lake Superior, the connecting channels of the Great Lakes in the Detroit River, St. Clair River, St. Mary's River, and the Straits of Mackinac will require deepening and improvement; and

Whereas the deepening of Great Lakes shipping channels is timely and necessary to permit full utilization of the many large freight carriers which have been placed in service on the Great Lakes in recent years, representing an investment of several hundred million dollars, and which vessels now cannot operate at full capacity due to limitations of depth in connecting channels; and

Whereas deepening the connecting channels of the Great Lakes will add to the efficiency of lake and ocean shipping and will bring great economic benefit to the commerce of the Great Lakes, the Middle West, and of the entire nation; and

Whereas such improvement would be consistent with a world-wide trend toward deep-draft shipping and would be consistent with federal projects for the deepening of seaboard harbors at many localities; and

Whereas authorizing and appropriating legislation for this purpose should be given high priority so that the improvement of Great Lakes connecting channels may be completed to coincide with the completion of the St. Lawrence Seaway Project: now, therefore, be it

Resolved by the senate, the assembly concurring, That the legislature of the state of Wisconsin hereby memorializes the Congress of the United States for the early

enactment of legislation to authorize the deepening of the Great Lakes connecting channels and to appropriate funds for that purpose; and, be it further

Resolved, That the Senators and Representatives from Wisconsin be requested to use their best efforts to secure the passage of such authorizing and appropriating legislation by the 84th Congress; and, be it further

Resolved, That properly attested copies of this resolution be transmitted to President Eisenhower; to the Chief of Engineers, U. S. Army; to each House of Congress; and to each Wisconsin member thereof.

Senator KERR. Dr. Marvin A. Rapp, Niagara Frontier Port Authority, Buffalo, N. Y.

STATEMENT OF DR. MARVIN A. RAPP, NIAGARA FRONTIER PORT AUTHORITY, BUFFALO, N. Y.

Mr. RAPP. I am appearing as consultant to the city and port of the city of Buffalo, in charge of the direction of the port activities. This division at the present time is in charge but will soon give way to a new Niagara Frontier Port Authority, whose formulation and policy has not as yet been made. So I do not speak for the port authority, but still for the old division, the Division and Port of the City of Buffalo.

The Niagara Frontier of New York State is almost watergirt. Historically, it was waterborn. A combination of the Erie Canal, the Niagara River and the Great Lakes made it, during the 19th century, the Queen City of the Great Lakes. The continuing development of the connecting channels and the creation of the Sault Ste. Marie Canal 100 years ago have made it one of the great industrial sections of North America. The money spent on the improvement of the Great Lakes harbors and connecting channels has been extremely modest compared with the rich returns in tonnage, money, and transportation savings which the Great Lakes system has given to the American people. Cost for all improvements to harbors in the Great Lakes and connecting channels to June 30, 1953—$246 million.

The Niagara frontier has been described as the most accessible area on the North American Continent. If it is not that, it is close to it. It is the hub of a mighty transportation system, the second largest rail center of the United States, the western terminus of the New York State Barge Canal and a principal port on the greatest water transportation system in the world. The inland seas have in the past, do now in the present, and will continue in the future, to pay great tribute to this area with its water and its water transportation.

Within a 500-mile radius of the Niagara frontier, less than overnight by rail from the Niagara frontier, can be found America's richest domestic and foreign market. The area contains more than 80 million people. Within that magic circle can be found most of the large cities of the United States and Canada; 54 of the 93 cities with 100,000 or more; 28 of the 50 largest cities in America, a total of 60 percent of the entire population of the United States and Canada.

It has been estimated that 80 percent of the people of the Niagara frontier are directly or indirectly dependent upon the commerce that flows through its port. Each year this commerce brings to Buffalo 20 million tons of goods valued at $1 billion. It has helped to create an industrial machine on the Niagara frontier that ranks within the first 10 of the United States. More than that, it is characterized by great

diversification. It is the grain, flour and feed milling center of the world. Approximately 60 million bushels of wheat are milled annually, 70 percent becoming flour and the remainder, dairy and poultry feeds. The Niagara frontier is the center of one of the largest electrochemical and electrometallurgical areas in the world. Steel and steel products represent 30 percent of the economy of the Niagara frontier.

Bethlehem, the largest steel plant in the area, is the second largest in its company's system. As Fortune magazine has said:

> On their providential commercial base the million-odd citizens of the Niagara frontier have erected a many-sided business structure that is a quintessential fragment of industrial America. The 200,000 factory workers of the area make everything from pig iron to pretzel benders. Yet despite spangles of brilliance, the overall impression that Buffalo creates is essentially monochromatic. For no single industry dominates, few individual products stand out.

This greatly diversified industrial machine depends principally upon two basic bulk commodities, grain and iron ore, both of which are shipped in tremendous quantities from the lakehead to Buffalo. The deeper the channels that carry this bulk, the larger the ships, the cheaper the cost of the raw materials, the greater, then, the production of the finished products and the healthier and more prosperous the economy of the Niagara frontier.

	Molded length	Net tons per foot of emersion near loadline
Great Lakes fleet:		
Class 1	Under 400 feet	470
Class 2	400 to 499 feet	517
Class 3	500 to 599 feet	808
Class 4	550 to 599 feet	1,043
Class 5	600 to 649 feet	1,180
Class 6	650 to 699 feet	1,332
Class 7	700 feet and over	1,752

The Soo Canal, constructed in 1855, carries 90 million tons of iron ore every year. During the war year, 1942, 190 million tons of iron ore passed through the Soo Canal. If one were to add the yearly tonnage of the Manchester Canals of England, the Kiel Canal between the North Sea and the Baltic Sea, the Suez Canal between the Mediterranean and the Red Sea, and the Panama Canal, and then multiplied those combined tonnages by two, the yearly tonnage through the Soo Canal would still be greater.

And the Soo Canal is open only 8 months of the year. From these western sources and through these connecting channels ore, limestone and grain flow into the Niagara frontier at the rate of 5 million tons of ore, 4 million tons of limestone and 7 million tons of grain, giving to the Niagara frontier and to the Nation as a whole the sinew of industry and the staff of life.

Recently, two national magazines, Newsweek and Business Week wrote optimistic stories of the Niagara frontier's future. The article in Newsweek was entitled "Inland Empire of the Sea." In Business Week, in December, an article in similar tone entitled "Buffalo Hits Another Jackpot" points to an expanding industrial and commercial future. This future is dependent in great part upon deeper water in its inner and outer harbors and upon the water lifeline to the west

through the connecting channels. The more efficient these channels, the greater the economic development of the Niagara frontier.

Just as the St. Lawrence seaway should be considered only a part of the expanding economy of the United States, so too should this question of the connecting channels and harbor deepening. All should be considered incidents in the gigantic expansion of our country. Today, the gross national product of the United States is close to $390 billion. By 1975 it is estimated it will be $600 billion. The population of the United States during that same period will increase to some 220 million people. Unless all modes of transportation are enlarged and made more efficient, transportation will not be able to supply the peoples of the United States with its production. This includes rail and water, large ships and small. The lake cities alone, it is predicted, will increase in population to 45 million along the 1,000-mile St. Lawrence seaway coastline by the turn of the century.

In all ports along the Great Lakes, preparation is being made for the expanding economy due to the increased national product, the growth of Canada, the St. Lawrence seaway and the new power. On the Niagara frontier, after 25 years of failure, the area has obtained a port authority which has now been formulated and has started operation. There seems to be new confidence abroad in the frontier.

The new economic resurgence is mostly connected with waterborne commerce. The Ford stamping plant, already one of the largest in the United States, plans a several million dollar expansion; Bethlehem Steel is contemplating expansion of their local plant, already the second largest of their corporation. Republic Steel is planning modernization and expansion amounting to millions of dollars. Recently they purchased 312 acres of the Tifft farm area to prepare it for industrial use. This area of the waterfront has lain idle since Ellicott first laid out Buffalo in the 1800's. Wickwire Steel, Niagara Mohawk—all have expansion programs amounting to millions of dollars. Most of these industries depend upon waterborne commerce—efficient waterborne commerce. Efficiency depends on deeper draft vessels.

As a result of the St. Lawrence seaway, continuing studies will shortly be made, followed eventually with legislative implementation to deepen the major ports to 27 feet to accommodate the ocean traffic. In Buffalo's case it is hoped that this year's Federal appropriation will not be overlooked in the supplemental budget as it has been in the original budget.

It is only logical that the connecting channels to the west should be made to accommodate the same depth as the harbors. A recent study of Frederic R. Harris, Inc., for the Niagara frontier drew the following conclusion:

> The port of Buffalo's future for lake trade depends, to a great degree, on the depths available in the so-called connecting channels * * *. The increased construction cost of the greater 27-foot depth has been estimated at $109,027,000 by the Great Lakes division of the Corps of Engineers. The deepening also would increase maintenance costs by about $200,000 a year.
>
> Until the connecting channels are deepened, fully laden seaway vessels will not be able to proceed as far uplake as Detroit. At first glance, it would therefore appear that it might not be in the best interests of the port of Buffalo to push for the 27-foot deepening of the connecting channels, however, most of the new vessels in the lakes trades are designed to operate at loaded drafts of at least 25 feet. One of the largest carriers, on its initial voyage in the fall of 1952, was

able to carry only 80 percent of its full cargo capacity due to lack of depth in the connecting channels. We believe this position is correct and that the port should continue its efforts, second only to first obtaining the necessary appropriations for deepening its own outer harbor to 27 feet. The full advantage of deepening the outer harbor to 27 feet cannot be obtained until both the seaway and the connecting channels are likewise ready for traffic requiring 27 feet depth.

With faith in the future and the hope of deeper water in its harbor and in the connecting channels, the Niagara Frontier Port Authority, based on the findings of its study, intends eventually to spend almost $27 million on port improvement and expansion. The initial phase calls for an expenditure of $5,500,000.

The city of Buffalo and the Niagara Frontier have consistently favored the deepening of these channels. During the last 2 years the director of the port has appeared at hearings, advocating approval of the 27-foot depth, and the mayor of the city of Buffalo added his voice to that of the port division. The projected lake fleet indicates that regardless of the St. Lawrence seaway eventually 27 feet will be necessary. Two years ago, when the port division of the city of Buffalo participated in the Detroit hearings, the following statement was issued upon receipt of United States Army Corps of Engineers' notice concerning public hearings on the subject:

Re Item No. 44, C. C. P., October 27, 1953, United States Army Corps of Engineers' Notice of Public Hearing Regarding Further Improvement of the Great Lakes Connecting Water, etc.

To the committee on legislation of the city of Buffalo, N. Y.

GENTLEMEN: The above-described item, referred to the division of the port for comment by city clerk's communication of October 29, 1953, has been reviewed as requested, and comments are herewith furnished as follows:

(*a*) The Detroit district of the United States Army Corps of Engineers has been authorized by Congress to survey the Great Lakes connecting waters to determine the feasibility of deepening them to 27 feet. If he is to report favorably, he must find that the needs of navigation are such as to justify such deepening, that is, that there will be benefit at least equal to the cost involved. The district engineer at Detroit is holding a public hearing there November 17 to aid him in his determination, and all interested parties are invited to attend.

(*b*) The city of Buffalo is certainly such an interested party. Present authorized depths in Buffalo Harbor are 22 feet and 23 feet in the inner harbor (Buffalo River and ship canal) and 23 feet and 25 feet in the outer harbor. These depths have not yet been achieved for lack of appropriations to complete authorized projects. When they are complete, they will in all probability be inadequate to the needs of prospective navigation, because for some time the trend has been to build larger vessels. Much of the present Great Lakes fleet is quite old, and as the present smaller vessels are retired, they are replaced with larger, deeper-draft faster vessels. The economies offered by these modern vessels cannot be achieved unless they call at harbors capable of accommodating them. It is therefore of importance to us that Buffalo Harbor be capable of receiving such vessels.

(*c*) Further improvements at Buffalo Harbor and other Lake Erie ports are dependent, however, on depths in the so-called connecting waters (St. Mary's and St. Clair Rivers, and Lake St. Clair) since most commerce destined for Buffalo passes through these connecting waters. This is the control point which must be improved, if further improvements are some day to be justified downlake.

(*d*) We appear to be entering a low-water cycle, this being the first year in ten that lake levels have shown a downward trend. There will, therefore, undoubtedly be increasing insistence on deeper channels in the immediate years ahead. Deepening of the connecting waters is many years away, since it is just being surveyed now, and must be reviewed, authorized by Congress, provided for by appropriation and finally built, before its benefits can be achieved.

(*e*) In the long-range view, Buffalo should therefore support the proponents of improvements of Great Lakes connecting waters. It is therefore planned to attend the hearing on November 17, and record the city as in favor of the proposed project, for the reasons generally outlined above.

Respectfully submitted.

DIVISION OF THE PORT OF BUFFALO.

Since the Soo locks were opened in 1855, a century ago, 4,374 million tons of traffic passed through that waterway. A substantial part of that passed through the other connecting channels. The aggregate lake traffic during the same period reached the immense total of 8 billion tons, or 50 tons for every person living at the present time in the United States.

For the entire period since Federal expenditures were first made in 1825 through 1954, such expenditures totaled $389,087,356, or about 8/1000 of a cent per ton-mile. In other words, all of the costs, and more, for such improvements during nearly a century and one-third are returned to the people of the United States each year in the form of lower shipping charges. No other transportation industry can surpass that record.

In conclusion, therefore, major harbors and connecting channels need 27-foot depth because of the following reasons:

(1) They are the lifeline for bulk materials, especially grain, iron ore, limestone, and coal.

(2) The industrial and commercial expansion is dependent upon deeper and more efficient channels.

(3) Deeper water is necessary to keep up with the gigantic expansion in the national gross product and the population of the United States.

(4) Connecting channel depth of 27 feet should match the 27 foot harbor depth now projected for seaway traffic.

(5) The projected lake fleet is moving toward a size eventually requiring 27 foot depth.

Mr. Chairman, may I express my gratitude for this opportunity to appear before your committee?

Senator KERR. Thank you, Dr. Rapp, for your courtesy and for a very interesting and enlightening statement.

Mr. RAPP. Thank you.

Senator KERR. Mr. Warren, of the Detroit Board of Commerce.

STATEMENT OF GERALD E. WARREN, DETROIT BOARD OF COMMERCE

Mr. WARREN. I am Gerald E. Warren. I represent the Detroit Board of Commerce. We represent in our area about 3,900 industrial and business concerns. In the interests of time I want to submit my statement for the record and thank you for the opportunity to do so.

We do view the deepening of the connecting channels in the Detroit area as being instrumental to our continued industrial growth, expanding with the economy of the Nation.

Senator KERR. Thank you very much, Mr. Warren. Your statement will be made a part of the record.

(The statement referred to is as follows:)

STATEMENT OF THE DETROIT BOARD OF COMMERCE

The Detroit Board of Commerce represents over 3,900 businesses and industries in the Detroit metropolitan area. Low cost water transportation has always been vital to this industrial area as Detroit depends in large part upon water transportation for its supply of basic raw materials. In addition an increasing volume of Detroit's manufactured products has been shipped by water to lake ports and overseas in recent years.

In 1952 Knappen-Tippetts-Abbett-McCarthy, a New York consulting firm, prepared for Wayne County a port economic survey for the Detroit region. Re-

ferring to page 8, volume I of this survey, we find that the total tonnage at the port of Detroit in 1950 was 22,944,000 tons. The survey estimates that even without the St. Lawrence seaway this total will reach 31 million tons in 1960 and 36 million tons in 1965. Preliminary but unofficial figures for 1955 show tonnage figures to be well above 24 million tons. The overseas import-export tonnage in 1950 of 30,000 tons grew to an estimated 85,000 tons by 1955.

The port of Detroit is located on one of the most important sections of the project under consideration in this hearing. The Detroit River holds the reputation of being one of the busiest water transportation arteries in the world. Today there is a 21-foot upbound channel and 25-foot downbound channel in the Detroit River. When the St. Lawrence seaway is completed, any vessel drawing over 21 feet will not be able to enter the Detroit River from Lake Erie. Detroit is in the center of the largest steel-using area in the world. Vast tonnages of iron ore, coal, limestone, iron and steel products, are annually shipped into Detroit by water. Authorities agree iron ore supply from the upper lakes States will have to be supplemented to an ever increasing degree with ore from outside the boundaries of the United States. When the seaway is completed these raw materials will be shipped through this improved water transportation facility and it is imperative that the Great Lakes connecting channels be deepened to handle the increased bulk cargo traffic from this new direction.

Anything that can be done to deepen the channels tends to make for more efficient and less costly water transportation. Vessels carrying heavy bulk commodities are definitely limited by the depth of the channels in the Detroit River, Lake St. Clair, and the St. Clair River. Therefore determination of the value of deepening these channels becomes a matter of balancing the vast benefits to our waterborne commerce as compared to the cost. Testimony presented by the Corps of Engineers, United States Army, at this hearing gives ample proof that the anticipated transportation savings to Great Lakes commerce economically justify the cost of this channel improvement.

Senator KERR. Let me say to each one of you that the attitude of this committee is to cooperate with you in the making of a record here that will justify the expediting of action on this legislation.

Many members of this committee are even more interested in this than the chairman of this subcommittee, and he is keenly interested in the development of a record that will justify early action on the matter in which you are so greatly interested.

Mr. Chapla, of the city of Lorain.

STATEMENT OF WALLACE J. CHAPLA, SERVICE DIRECTOR, CITY OF LORAIN, OHIO

Mr. CHAPLA. Mr. Chairman and gentlemen; I am Wallace J. Chapla, director of public service of the city of Lorain, Ohio. I desire to submit for the record a resolution passed by our council for the petitioning of your honorable body for the connecting channels. I desire to make a brief statement otherwise.

The city of Lorain is a harbor whose economy in the community is dependent entirely on a waterborne commerce. We are a bulk-cargo port and we are directly affected by the improvements of the connecting channels.

Those improvements in the connecting channels will be directly related to our commerce. Thank you for appearing before you. I certainly hope the successful conclusion of this committee will be to so find.

Senator KERR. Thank you so much. The resolution will be made a part of the record.

(The resolution referred to is as follows:)

RESOLUTION NO. 4075 OF THE COUNCIL OF THE CITY OF LORAIN, OHIO, PETITIONING THE HONORABLE BODY OF THE PUBLIC WORKS COMMITTEE OF THE UNITED STATES SENATE FOR FAVORABLE APPROVAL OF THE IMPROVEMENT OF THE CONNECTING CHANNELS

"Whereas the city of Lorain, Ohio, is an important harbor on Lake Erie; and

"Whereas the welfare of the Lorain Harbor is directly connected to the availability of the connecting channels being improved for better navigational efficiency, and,

"Whereas the city of Lorain recognizes that the St. Lawrence seaway will have its greatest potential benefits to all the ports along the Great Lakes only when and if the connecting channels are made an integral part thereof: Now, therefore, be it

"*Resolved by the council of the city of Lorain, State of Ohio:*

"SECTION 1. That the city council of the city of Lorain, Ohio, hereby desires to go on record as to approving of the project that will provide for the deepening and improvement in the connecting channels of the upper lakes.

"SEC. 2. That the city of Lorain, Ohio, hereby further petitions the honorable body of the Public Works Committee of the United States Senate for favorable action in the consideration of the connecting channels project.

"SEC. 3. That this resolution take effect and be in force from and after the earliest period allowed by law."

Passed January 16, 1956.

JOHN A. REPKO, *President.*
Attest: JOHN SLIVKA, *Clerk.*
JOHN C. JAWORSKI, *Mayor.*

Approved: January 16, 1956.

CERTIFIED COPY

CITY OF LORAIN,
State of Ohio, ss:

I, the undersigned, city auditor of the city of Lorain, State of Ohio, do hereby certify that the foregoing is a true and correct copy of resolution No. 4075, passed the 16th day of January, 1956, taken from the records on file in the office of city auditor of said city.

Witness my hand at Lorain, Ohio, this 17th day of January A. D. 1956.

JOSEPH J. MITOCH, *City Auditor.*

Senator KERR. Mr. Mengel, executive director, Oswego Port Authority, Oswego, N. Y.

STATEMENT OF ARTHUR C. MENGEL, EXECUTIVE DIRECTOR, OSWEGO PORT AUTHORITY, OSWEGO, N. Y.

Mr. MENGEL. Mr. Chairman and gentlemen, I am Arthur Mengel. I am executive director of the Oswego Port Authority, a body corporate and politic responsible under the laws of the State of New York for the administration of Oswego Harbor. At a special meeting of the Oswego Port Authority held January 13, 1956, it was resolved that the authority lend all possible support toward obtaining the deeper channels.

We are peculiar today in being the only board here from Lake Ontario.

The port of Oswego is situated on the southerly shore of Lake Ontario at the mouth of the Oswego River. It is served by three railroads and it is the Lake Ontario terminus of the New York State Barge Canal system. It has been a port of entry for lake shipping for over 150 years.

This port is now engaged in an intensive development and promotional program designed to obtain the maximum advantage from the new St. Lawrence seaway. We will be the seaway port for the

great central New York industrial complex. The proposed channel improvements will result in an increase in the number of bottoms plying in foreign trade routes.

This increased frequency of sailings is absolutely necessary to generate traffic through this port in competition with the established North Atlantic ports. Our potential as a distribution center via water, rail, and truck will be considerably enhanced by the deepening of the channels to our west. It is quite probable that with this channel deepening package freight will once again resume between all the ports on the Great Lakes.

The port of Oswego is today a transshipping point for grain from the great producing States of the Northwest destined for export. It is here that the grain is transferred from lake steamers to canal barges for furtherance to the port of Albany. The grain interests tell us that this is the cheapest route by which grain can be moved to the export markets. Our position in this respect would be insured were the channels deepened to accommodate the newest lake class vessels in this trade.

We feel that this project merits your wholehearted consideration and trust you will give it your approval.

Thank you, Mr. Chairman.

Senator KERR. Thank you, Mr. Mengel, for your good statement.

Dr. Halvorson, of the National Grange, Washington, D. C.

STATEMENT OF DR. LLOYD C. HALVORSON, THE NATIONAL GRANGE, WASHINGTON, D. C.

Mr. HALVORSON. Mr. Chairman, I will file my statement and make a few brief comments.

Senator KERR. Your statement will be made a part of the record.

(The statement referred to is as follows:)

STATEMENT OF LLOYD C. HALVORSON, ECONOMIST, THE NATIONAL GRANGE

I appear before your committee today as the representative of the National Grange to support the legislation for the improvement of the Great Lakes connecting channels you are now considering.

We have a deep interest in this project as it involves transportation costs not only on the products our members have to sell but also upon the numerous products the farmer purchases. In addition, we have a vital interest in every natural resource development or improvement which adds to the strength of our national defense. When you consider that some 85 percent of the iron ore that feeds the furnaces of our gigantic steel industry passes through these channels and when you further consider that this downbound ore movement could be seriously curtailed should a single ship be sunk in these channels, it is our feeling that the importance of this project to our Nation is not only vital, but their speedy improvement is highly necessary at this time.

It is not my intention to take take this committee's time, nor burden the record with a background history of these channels and their economic justification. Witnesses who have preceded me, who are experts in the irrespective fields of engineering, economics and Great Lakes ship operation, have already testified as to this. My sole purpose today is to take advantage of this opportunity to express to this committee the National Grange's approval of this project, to earnestly urge its approval by you and to place in the hearing record, as a part of this statement, the resolution of our organization endorsing and recommending this improvement, adopted at the 89th annual session of the National Grange, at Cleveland, Ohio, November 14–25, 1955, which reads as follows:

"ST. LAWRENCE SEAWAY

"*Resolved*, That we commend the Congress for progress made in construction of the Great Lakes-St. Lawrence seaway. In order that full use may be made of this seaway, we recommend that the connecting channels between Lake Erie and Lake Huron and between Lake Huron and Lake Superior be deepened to 27 feet for both upbound and downbound vessels."

Mr. HALVORSON. The National Grange has for many years supported the idea of developing the St. Lawrence seaway. We are very grateful for the progress that has been made. We are now eager that the connecting channels be improved and deepened so that the seagoing vessels can get all the way in to the heart of the Midwest.

I want to stress that support for the St. Lawrence seaway as far as the grange is concerned is not limited to the Great Lakes area. The support is wide. We get support from our granges throughout the Great Plains area, all the way down and practically and probably including Texas. I know it includes Oklahoma and Kansas. All along that area.

Senator KERR. If it includes Oklahoma I will tell you confidentially that Texas isn't absolutely necessary.

Mr. HALVORSON. The reason that we support it is that we are quite certain, from the studies that we have made and the studies of others that we have read, that this will mean some extra income to the farmers in the way of higher prices for the grain, and possibly even expanded markets abroad.

We also have a deep interest in the fact that this St. Lawrence seaway will improve our national defense position. That is all that I have to say.

Thank you very much.

Senator KERR. Thank you, Dr. Halvorson. We are very glad to have the attitude of your very great farm organization, as also that of our good friend Mr. McDonald, of the National Farmers Union.

STATEMENT OF ANGUS McDONALD, NATIONAL FARMERS UNION, WASHINGTON, D. C.

Mr. MCDONALD. Mr. Chairman, I have a brief statement which I would like to file.

Senator KERR. Very good. It will be made a part of the record.

(The statement referred to is as follows:)

STATEMENT OF ANGUS MCDONALD, ASSISTANT LEGISLATIVE SECRETARY OF THE NATIONAL FARMERS UNION

Mr. Chairman and members of the committee, I am appearing here in support of S. 151, 171, 961, 1032, and 1052, sponsored by Senators Thye, Wiley, Humphrey, Potter, and Langer. These bills are identical and authorize the St. Lawrence connecting channels which would complete the St. Lawrence navigation project and make possible deep channel navigation from Duluth, Minn., to any port in the world. The Farmers Union has supported the St. Lawrence seaway power and navigation project ever since it was first proposed. The membership of our organization has in many State and National conventions unanimously approved the project.

Several years ago, we supported Senator Wiley's bill which authorized the eastern end of the project. It was our understanding that efforts would be made within and without the Congress to bring about authorization of the connecting channels. For that reason we went along with the Wiley bill. Our most compelling interest in the legislation under consideration by this committee is that its enactment would bring about a reduction in shipping charges for farm products.

Thousands of our members in North Dakota, South Dakota, Wisconsin, Minnesota, Montana, and other States would benefit because of reduced transportation charges on grain. Members of the Farmers Union are responsible for a large proportion of the production of wheat and other grains that is produced in the Nation.

I call the committee's attention to testimony of James G. Patton, our national president, before the Senate Foreign Relations Committee on April 15, 1953. He said:

"* * * Our most compelling interest in the St. Lawrence navigation project is the reduction in shipping charges that it would bring about for farm products. Our analysis * * * indicates that wheat producers in North Dakota would save from 5½ to 18 cents per bushel on a shipment of wheat to overseas destinations or to the Atlantic coast as a result of deepwater navigation through the Great Lakes seaway * * *."

I also call the committee's attention to the testimony of this witness before the Senate Committee on Interstate and Foreign Commerce in regard to the boxcar shortage. As this testimony indicates the boxcar shortage was more critical in 1955 than ever before, despite the fact that the American railroads had benefited from certificates of necessity designed to relieve freight car shortage to the extent of $1,500,000. Grain producers have experienced terrific hardships for years because of the lack of boxcars which the railroads cannot or will not supply.

Completion of the St. Lawrence Waterway by authorization of the connecting channels would bring considerable relief in this situation, permitting boxcars to be routed from the wheat areas to lake ports and returned immediately to the wheat area, instead of being moved on to eastern markets. Completion of the project would also facilitate the movement of iron ore, stone, sand and gravel, and other heavy commodities.

Finally, deepening the connecting channels would strengthen the national transportation system and the entire economy. It would bring about savings to farmers, benefit consumers in the great urban centers of the eastern part of the Nation and strengthen national defense by making possible the more efficient movement of defense materials and shipping. We urge the committee to approve this legislation as expeditiously as possible.

Mr. McDONALD. I am pleased to say that in appearing here in support of the House-passed bill, which I believe is similar to the Senate bill sponsored by Senators Thye, Wiley, Humphrey, Potter, and Langer, our support of this legislation is consistent with the position of the National Farmers Union over a period of 30 years.

We have always been for complete development of the St. Lawrence project.

I call the committee's particular attention to the testimony of James G. Patton, our national president, before the Senate Foreign Relations Committee on April 15, 1953. Mr. Patton said:

> Our most compelling interest in the St. Lawrence navigation project is the reduction in shipping charges that it would bring about for farm products. Our analysis indicates that wheat producers in North Dakota would save from 5½ to 18 cents per bushel on a shipment of wheat to overseas destinations, or to the Atlantic coast, as a result of deepwater navigation through the Great Lakes seaway.

It might be in point to call attention to the Farmers Union Grain Terminal Association, the largest grain cooperative in the world, which handles annually about 150 to 200 million bushels of grain.

Finally, in addition to benefits to consumers and farmers, the connecting channels would strengthen the national transportation system and the entire economy. We urge the committee to approve this legislation as expeditiously as possible.

Senator KERR. Thank you very much, Mr. McDonald.

Mr. Hoffman, legislative director of the United Steel workers.

Let me say to the witnesses that you need not let the bells bother you. They appear at periodic times here with amazing regularity of timing and with an almost universal lack of damage to anyone.

STATEMENT OF FRANK N. HOFFMAN, LEGISLATIVE DIRECTOR, UNITED STEEL WORKERS, WASHINGTON, D. C.

Mr. HOFFMAN. I am Frank N. Hoffman. I hold the position of legislative director of the United Steelworkers of America, AFL–CIO.

I should like to thank you, both personally and on behalf of the organization which I am privileged to represent, for this opportunity to present a brief statement of our views with regard to the need of improving the Great Lakes connecting channels.

It is not my intention to take your time or to burden the record in regard to such a program by repeating or discussing matters which have been or will be dealt with competently and at length by people who are experts in their respective fields, of the justifiability—in fact, the necessity—of such an improvement program.

I do not claim to be an authority in the field in which the Army engineers deal, in which the economists deal, or in which navigation experts deal. I simply want to say, fundamentally, as a layman I am impressed by the information that has been supplied both this committee and our union by such experts and by our members.

I am appearing here with this brief statement on behalf of our members and our local and international officers in support of a program for improving these connecting channels. It will be an immediate benefit to the people who are members of our union in this area. Also, if I may say so, it will benefit not only the individuals who live in the immediate area of the Great Lakes or are directly interested as employees in industries we represent, but the citizens of this country, separate and apart from their regional or occupational interests. To be sure, our interests are economic—but, as is true of most Americans, they are economic and social, not in a narrow sense, but in the broader sense which concerns the economic health of our Nation.

As you gentlemen know, both on the State level, as indicated by the letters of approval from governors of various States, and on the national level as reflected by the actions and bills introduced by Senators, this is a nonpartisan matter from a political point of view.

It is my conviction that the support for improving the channels is not a political or regional product. Our interests are similar in many respects to those people in the immediate localities concerned, because our membership is not confined to a particular industry, a particular area, or a particular aspect of the lives of our members.

On the contrary, as you well know, we have members in a great many industries throughout the length and breadth of this country. Our view, and I am sure it is the view of members of both political parties who are interested in and are working for such a program, is that this is an investment in the future of this country in the best sense of the word.

This is an investment which we consider to be necessary, not only to promote the economic peacetime future well-being of the country, but as a form of insurance against disasters such as armed conflict.

It is in essence, as I see it, somewhat comparable to an insurance policy against potential disaster. Certainly we do not begrudge the payment of premiums on an insurance policy, and I do not think we should begrudge the payment of premiums for the improvement of these channels by simply looking at them as dollars which must return equivalent dollars. I am sure that you gentlemen feel much happier

and more comfortable as you pay the premiums on your insurance policy when the Good Lord prevents you from having to face the disasters against which you are protecting yourselves through insurance. In addition, this, like other programs to develop our various natural resources, is good per se.

As I said previously, we have a number of different interests which are not only immediate and industrial, but also nationwide and not necessarily occupational.

This union, which I represent, is concerned with members who are employed in various capacities. Our members and their families will be affected by whether or not we proceed to make the maximum, most efficient utilization of this Nation's greatest chain of inland waterways—the Great Lakes.

In the first place, we are the principal union in the iron-ore industry, particularly in the Mesabi area. The iron-ore shipments constitute the largest single item shipped through this chain of waterways. In that sense, our members are interested in promoting these improvements as producers.

In the second place, we represent over 90 percent of the steelmaking capacity in this country. Our members are interested, therefore, not only as producers of iron ore, but also as consumers of the iron ore which is shipped through the Great Lakes.

In the third place—and this is little known to most people—we have an interest as conveyors of this iron ore, inasmuch as we have what is facetiously known as a "floating local union" which is the principal local union for the people working on the boats conveying this ore. The health of their industry, the safety, the efficiency, et cetera, of the ore-shipping industry are, therefore, a further factor involving us.

Further—and this point has been distorted and misconstrued by propagandists—we are interested as consumers per se. You gentlemen have heard people talk about organized labor, organized industry, and the like, and allegations to the effect that nobody represents consumers as such. I should like to emphasize that our members and their families are consumers. After all, the money which our members earn from their respective forms of employment is not stored in deep freezers. It is used to provide the members of our unions and their families with food, clothing, and shelter, as well as whatever they can afford beyond these basic necessities of life.

Our members are consumers. I cannot repeat this too often. Therefore, while they may not be employed in industries which produce or distribute other products carried through this chain of waterways, such as grain, coal, and petroleum, they are interested in the most efficient and least expensive method of having these products distributed to themselves, their families, and to their neighbors and their families. I could go on at length in discussing the economic and social principles which have led us to the firm conviction that this money spent in improving this waterway chain of transportation should be maintained at maximum efficiency.

In the interests of brevity, I shall not consume any more of your time. If, however, there is anyway we can cooperate with you further in this project, please let us know.

In closing, I should simply like to repeat my thanks and appreciation for being allowed to present on the record, the views of my union

in support of the program of improvement before you and I hope that you will act favorably on the suggested improvements before you.

Senator, if I might just say this: It is my considered desire that the marvelous display of the youth of America from the Great State of Oklahoma on New Year's Day in the Orange Bowl contest, and their attitude toward getting things done in a hurry, will be incumbent upon this committee and the Senate of the United States in giving us this as quickly as possible.

Senator KERR. I must say that you couldn't have used a more persuasive illustration.

Thank you very much, Mr. Hoffman.

Mr. Chartrand, transportation section, Chicago Board of Trade.

STATEMENT OF J. S. CHARTRAND, TRANSPORTATION SECTION, CHICAGO BOARD OF TRADE

Mr. CHARTRAND. I appear here today in behalf of the Board of Trade of the City of Chicago, and will confine my remarks to why we believe that there should be no delay on the enactment of this legislation.

We wish to express our sincere thanks for the opportunity of appearing here.

Any further delay would weaken the chain, the connecting chain between the St. Lawrence seaway, this tremendous lake development itself, and the inland waterways. Those are three that can be hooked up together and to the benefit of our farm economy.

The export picture is dependent on adequate imports. There must be a corresponding number of arriving vessels in order to satisfy our export demands. Therefore, there must be no deterrent to the free flow of foreign ships into our Midwest which anything less than an adequate channel would produce.

I might say that in order to remove the uncertainty that might exist in the minds of industry today as to whether to go forward and invest fully and adequately because of something less than maximum channel depths, that that should be removed as quickly as possible in order that industry can go forward and the farm programs can go forward knowing what to fully expect.

So in closing I would like to say this: There should be no delay, first, in order that it might operate at its maximum efficiency; second, that the greatest benefits could inure to the people of the United States as quickly as possible; and that there would be the quickest possible benefits to the farm economy.

I thank you for the opportunity of appearing.

Senator KERR. Thank you, Mr. Chartrand.

We appreciate your remarks. We think they are very timely.

Mr. Hunner, of the Duluth Port Authority?

STATEMENT OF JOHN C. HUNNER, SECRETARY, DULUTH PORT AUTHORITY, DULUTH, MINN.

Mr. HUNNER. Thank you, Mr. Chairman and gentlemen.

I am John C. Hunner. My business address is 209 City Hall, Duluth, Minn. I have served as director of city planning in Duluth for the past 12 years and, in addition, I am serving as secretary to the port authority of Duluth.

In recognition that Duluth is the port of Minnesota, its port authority membership represents important interests much broader than if purely municipal. Its membership is constituted with appointees of the Governor of the great State of Minnesota who presently come from both Minneapolis and the far western part of the State. The authority membership includes two appointees of the County Board of St. Louis County, which county in area is greater than that of two of the States of the Nation. This county contains the major parts of Minnesota's famous iron ranges. The other three members of our port authority are appointees of the mayor and City Council of Duluth. The views I express today are those of the port authority of Duluth, the Duluth Chamber of Commerce, and the Harbor Commission of Superior, Wis.

It is our understanding that the purpose of this hearing is to ascertain the views of interested parties as to the advisability of further improvements in the Great Lakes connecting channels so as to afford a minimum depth of 27 feet for ships desiring to sail to the very head of the Great Lakes waterway.

To our way of thinking it is desirable, if not imperative, that the present channels be so deepened. The whole interlake system of water transportation on the Great Lakes is based on the movement of iron ore from upper lake ports to Chicago, Detroit, and Lake Erie ports.

In one sense the water movement of coal, limestone, general freight, and even grain, is incidental to the transportation of iron ore. In any event, the water transportation of those commodities would be substantially more expensive were it not for the very heavy iron-ore movement which alone has approximated 80 million tons for each of the past 8 years.

Since the Second World War the makeup of the vessels engaged in the ore trade has been radically altered by the addition of vessels designed for maximum drafts in excess of 26 feet. The result of this change in the composition of the ore-carrier fleet is that these vessels are not today utilized to their maximum efficiency. We have made a study of the carrying capacities of 43 of the approximately 290 American vessels engaged in the ore trade operating through the present channels comparing this with their carrying capacities if operating through 27-foot channels at various lake levels. Only vessels having maximum drafts in excess of 24 feet are treated in the study.

The figures indicate that the efficiency of these deep-draft vessels in the ore trade is reduced by approximately 11 percent and that on a seasonal basis a 27-foot draft in connecting channels would permit these vessels to carry in excess of 3 million gross tons of iron ore more than they can transport through existing channels. These figures do not take into account a like trend in increased drafts of vessels of Canadian registry constructed in the last few years, which will probably account for more than an additional million tons per year

The present iron-ore shipping rate from upper lake ports is $1.60 a ton and a simple arithmetical calculation indicates a benefit of almost $6½ million would result annually in conveying ore alone through the 27-foot-deep channel system.

During years when there has been a heavy demand for iron ore, there has been a heavy movement of all-rail ore from the Minnesota

ranges to eastern consuming areas necessitated because the supply of bottoms was inadequate to transport the needed ore. The all-rail costs, while by no means exorbitant, were substantially in excess of the cost of water movement.

In addition, when the rail movement of iron ore coincides with the heavy rail movement of other commodities, the combination may well severely tax the ability of rail carriers to operate to their required full efficiency. This is a matter of extreme concern, particularly in times of national emergency.

The effect of a 27-foot channel on the water movement of grain from Duluth-Superior and Lake Michigan ports to Buffalo is not quite as obvious as the effect of an improvement of these channels on the ore movement. The water movement of grain from Duluth-Superior since the Second World War has been very heavy, amounting, as an example, to 169 million bushels in 1945. It is entirely conceivable that with the 27-foot-deep waterway, the American "Heartland" can be the greatest center of world grain export.

Grain is considered a low-pay freight-rate commodity and unless vessel owners can utilize the full carrying capacity of their ships, the world at large would lose the advantage offered in the way of lowest possible transportation costs on a commodity so essential to life.

Generally speaking, the extent to which the efficiency of the Great Lakes ore-carrying fleet may be increased by a 27-foot draft channel should make more bottoms available for the transportation of grain and very possibly might achieve reductions in the rates charged for the transportation of grain from Duluth to Buffalo.

In practically every year during and since the Second World War, serious difficulties have been encountered in the movement of the grain crop of the Northwestern States of Minnesota, Montana, and the Dakotas because of boxcar shortages. A very important contributing cause to this boxcar shortage is the all-rail movement of grain for milling at Buffalo and for export.

This all-rail movement is in great part occasioned by the difficulty of securing vessel space for lake movement of grain because of the heavy ore movement. When grain is moved from a North Dakota or Minnesota elevator to Duluth for water movement beyond, obviously that car can be returned to North Dakota for further grain loading in but a fraction of the time required for its return if the entire movement is by rail from the Midwest country elevator to Buffalo or the Atlantic seaboard for export. Thus, the deepening of the Great Lakes connecting channels to a 27-foot depth could and probably would result in substantial benefits to the grain trade and to the farmer in lowered transportation costs and greater availability of boxcars for the movement of the crop.

Failure to carry out the deepening of the connecting channels would have a discriminating effect on the ports of Lakes Superior, Michigan, and Huron. If the benefits of the construction of the St. Lawrence seaway are to be enjoyed by this major part of the Great Lakes Waterway, it is, of course, obvious that the connecting channels must be deepened.

Foreign commerce between the Great Lakes region and the balance of the world has substantially increased since the Second World War and if the full benefits of the seaway are to come to the heart of this great country, the connecting channels must be deepened.

In summary, the deepening to 27 feet of the limiting channels in the Great Lakes Waterway system is necessary for both the proper utilization of present lake transportation facilities and the extension of the benefits of the St. Lawrence seaway to the vast midcontinent area lying beyond Lake Superior and to world traffic on the high seas.

I would like to file for your record the resolution of the Chamber of Commerce of Duluth and also the details on our little study on the 43 of the larger lake ships.

Senator KERR. That may be made a part of the record.

Mr. HUNNER. Thank you, sir.

We thank you for this opportunity of being able to express our opinion before your honorable committee.

Senator KERR. And we thank you for your good statement.

(The matter referred to is as follows:)

RESOLUTION SUPPORTING IMPROVEMENT OF GREAT LAKES CONNECTING CHANNELS

"Whereas in Public Law 358 of the 83d Congress authorized the improvement of the St. Lawrence River so as to permit deep-draft navigation to a depth of 27 feet into Lakes Erie and Ontario; and

"Whereas it is necessary, if ports on Lake Michigan and Lake Superior are to be given the full benefit of this improvement, that connecting channels of Lake St. Clair, the Detroit and St. Marys Rivers and the locks at Sault Ste. Marie be also improved so as to permit navigation down to a 27-foot draft; and

"Whereas the needs of domestic carriers on the lakes due to the great draft of ships constructed since World War II also require improvement of these channels: Now, therefore, it is hereby

"*Resolved by the Duluth Chamber of Commerce*, That that body favors the adoption of S. 151 which authorizes the improvement of these connecting channels; and it is further

"*Resolved*, That a certified copy of this resolution shall be sent to the chairman of the Senate Public Works Committee and to the Minnesota congressional delegation."

I hereby certify that the foregoing resolution was duly adopted at a meeting of the Waterways Committee on the 5th day of February 1955, and approved by the board of directors, March 1, 1955, and is now in full force and effect.

Witness my signature as secretary of said organization this 20th day of January 1956.

ROBERT B. MORRIS, *Executive Secretary.*

STUDY OF WATER LEVELS ON LAKE SUPERIOR AT DULUTH AND THE EFFECT OF DEEPENING GREAT LAKES CONNECTING CHANNELS TO 27 FEET ON THE CAPACITY OF 43 AMERICAN LAKE VESSELS HAVING MAXIMUM DRAFTS IN EXCESS OF 23 FEET

Statement showing annual mean elevations of Lake Superior for years 1923–52 inclusive, at Duluth-Superior

["0" plane for Lake Superior 601.6 feet]

Year	Mean	Year	Mean	Year	Mean
1923	601.48	1933	602.25	1943	602.82
1924	601.15	1934	602.42	1944	602.52
1925	600.85	1935	602.49	1945	602.65
1926	600.58	1936	602.31	1946	602.59
1927	601.84	1937	602.27	1947	602.69
1928	602.29	1938	602.65	1948	602.19
1929	602.39	1939	602.63	1949	602.36
1930	602.20	1940	602.05	1950	603.01
1931	601.84	1941	602.28	1951	603.22
1932	602.17	1942	602.61	1952	602.94

Source: United States Lake Survey Monthly Mean Elevations of Lake Superior at Duluth-Superior, 1859 to 1952.

Monthly mean elevations of Lake Superior at Duluth-Superior, January to October, 1953

Month	Mean	Month	Mean
January	602.06	June	602.67
February	601.87	July	603.03
March	601.73	August	603.16
April	601.91	September	603.00
May	602.12	October	602.71

SOURCE: United States lake survey monthly mean elevations of Lake Superior at Duluth-Superior' 1859–1952.

Dates in 1953 on which elevations at Duluth-Superior equaled or were less than 0 plane for Lake Superior and amounts by which elevations on those dates were less than 0 plane

Date	Less than 0 plane (feet)	Date	Less than 0 plane (feet)	Date	Less than 0 plane (feet)
Mar. 28	0.26	Apr. 11	.16	Apr. 22	.09
Mar. 29	.05	Apr. 12	.05	Apr. 23	.16
Mar. 30	.12	Apr. 13	.04	Apr. 27	0
Mar. 31	.10	Apr. 15	.02	May 12	.13
Apr. 1	.07	Apr. 16	.44	May 13	.05
Apr. 4	.08	Apr. 17	.34	Nov. 3	0
Apr. 10	.23	Apr. 18	.02		

Source: Readings official automatic gage at United States engineers vessel yard at Duluth.

UNITED STATES NAVY,
BRANCH HYDROGRAPHIC OFFICE,
Duluth, Minn., November 6, 1953.

LOCAL HYDROGRAPHIC MEMORANDUM FOR MARINERS

INFORMATION RELATING TO THE NAVIGATION OF LAKE SUPERIOR AND TRIBUTARY WATERS AS FAR EAST AS SAULT STE. MARIE

Memorandum No. 132–53

The following mean stages of the Great Lakes for the month of October 1953 are based on data obtained from the United States lake-survey report for that month:

(240) *October lake levels* [1]

Lake	Reference low water datum	October stage	Resultant feet above mean tide at New York
Superior	601.60	1.11 feet above	602.71
Huron	578.50	3.03 feet above	581.53
Michigan	578.50	3.03 feet above	581.53
St. Clair	573.50	2.84 feet above	576.34
Erie	570.50	2.67 feet above	573.17
Ontario	244.00	2.30 feet above	246.30

[1] United States lake survey, Detroit, report dated Nov. 3, 1953.

(241) *Lake Carriers Association recommended maximum drafts effective immediately* [1]

	River	Draft	Change
Upbound	Detroit River	21 feet 1 inch	No change.
	St. Marys River	21 feet 5 inches	Decrease 2 inches.
Downbound	do	24 feet 10 inches	Do.
	Detroit River	25 feet 1 inch	No change.

[1] USCG, Soo, N/M S–138, dated Nov. 5, 1953.

(242) *Lake Superior, Rock Harbor, buoy reset*

Blake Point Buoy 1 (LL, p. 305), previously reported missing from station, has been replaced on station (USCG, Soo, N/M S–138, dated November 5, 1953).

U. J. BLINZLER,
Lieutenant, United States Navy,
Officer in Charge.

Please post conspicuously for information of shipmasters.

Statement showing owner-rated ore-carrying capacities based on draft of summer Plimsoll marks and maximum drafts of 43 Great Lakes vessels exceeding 23 feet maximum draft and comparison of lessened carrying capacities of such vessels through present downbound channels and 27-foot channels, at various water levels equaling 0 plane. 1 foot above 0 plane and 1 foot below 0 plane

Vessel	Maximum draft	Capacity (gross tons)	Lessened capacity in gross tons resulting from varying stages of water in any limiting channel, allowing 1½-foot clearance for squat of vessel and safety in—					
			Present 25-foot downbound channels			Improved channels of 27-foot depth		
			23 feet 6 inches, 0 plane	24 feet 6 inches, 1 foot above 0 plane	22 feet 6 inches, 1 foot below 0 plane	25 feet 6 inches, 0 plane	26 feet 6 inches, 1 foot above 0 plane	24 feet 6 inches, 1 foot below 0 plane
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Ft. Ins.							
A. M. Anderson (1952)	25 7	19,500	2,500	1,300	3,700	100	----------	1,300
Cason Callaway (1952)	25 7	19,500	2,500	1,300	3,700	100	----------	1,300
P. R. Clarke (1952)	25 7	19,500	2,500	1,300	3,700	100	----------	1,300
Fairless (1942)	24 7	17,650	1,300	100	2,500	----------	----------	100
Ferbert (1942)	24 7	17,650	1,300	100	2,500	----------	----------	100
Frazer (1942)	24 7	17,650	1,300	100	2,500	----------	----------	100
Olds (1942)	24 7	17,650	1,300	100	2,500	----------	----------	100
Voorhees (1942)	24 7	17,650	1,300	100	2,500	----------	----------	100
Avery (1943)	24 6	15,400	1,200	----------	2,400	----------	----------	----------
Sloan (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
Stanley (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
J. L. Mauthe (1952)	25 8	19,500	2,600	1,400	3,800	200	----------	1,400
Elton Hoyt II (1952)	26 4	18,000	3,400	2,200	4,600	1,000	----------	2,200
Coulby (1943)	23 ½	16,100	----------	----------	650	----------	----------	----------
Armstrong (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
Grace (1943)	24 6	15,400	1,200	----------	2,400	----------	----------	----------
Purnell (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
Sykes (1949)	25 8	21,000	2,600	1,400	3,800	200	----------	1,400
Hutchinson, C. L. (1952)	25 1	17,500	1,900	700	3,100	----------	----------	700
Hutchinson, J. T. (1943)	24 7	15,800	1,300	100	2,500	----------	----------	100
Randall (1942)	24 7	15,800	1,300	100	2,500	----------	----------	100
Sparrows Point (1952)	26 3	18,000	3,300	2,100	4,500	900	----------	2,100
Johnstown (1952)	26 3	18,000	3,300	2,100	4,500	900	----------	2,100
Lehigh (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
Steelton (1943)	24 7	15,400	1,300	100	2,500	----------	----------	100
Greene (1952)	25 8	19,500	2,600	1,400	3,800	200	----------	1,400
Cliffs Victory (1951)	26 6	14,000	2,600	1,400	3,800	2,600	----------	1,400
Cadillac (1943)	24 7	15,600	1,300	100	2,500	----------	----------	100
Champlain (1943)	24 7	15,600	1,300	100	2,500	----------	----------	100
Marshall, E. M. (1953)	25 2	17,500	2,000	800	3,200	----------	----------	800
Ayers (1943)	24 7	15,500	1,300	100	2,500	----------	----------	100

Hillman, Jr. (1943)	24	7	15,500	1,300	100	2,500			100
Weir, E. T. (1952)	25	7	21,000	2,500	1,300	3,700	100		1,300
Thompson, J. H. (1952)	26	2	21,000	3,200	2,000	4,400	800		2,000
Humphrey, Geo. M. (1954)	26	2	[1] 22,000	3,200	2,000	4,400	800		2,000
Wilson ( )	24	7	15,500	1,300	100	2,500			100
Armco (1953)	25	7	19,500	2,500	1,300	3,700	100		1,300
Reserve (1953)	25	7	19,500	2,500	1,300	3,700	100		1,300
Reiss, R. J. (1943)	24	7	15,500	1,300	100	2,500			100
Girdler (1951)	24	5	14,000	900		2,100			
White (1952)	24	5	14,000	900		2,100			
Browning (1952)	24	5	14,000	900		2,100			
William Clay Ford (1953)	25	7	[1] 20,000	2,500	1,300	3,700	100		1,300
Total			737,850	78,000	28,500	129,050	8,300		28,500
Percent of capacity lost				10.57	3.05	17.49	1.12		3.05
40-trip seasonal tonnages			29,514,000	3,120,000	1,140,000	5,162,000	332,000		1,140,000

NOTE.—Lessened capacities for various drafts shown in columns (4) to (9), inclusive, are computed on the basis of 100 gross tons per inch of draft. The generally accepted formula for vessels 15,500 tons and over is 100 to 110 tons per inch of draft. As a figure of 100 tons per inch is used the lessened capacities shown are somewhat understated.

[1] Estimated.

Source: Transportation Lines on the Great Lakes System, 1953; 1953 Great Lakes Iron Ore Carriers (M. A. Hanna Co.).

Mr. HUNNER. Mr. Chairman, I had anticipated the pleasure of introducing the mayor of Duluth. He has just left the meeting with Congressman Blatnik.

I would like to introduce our new port director, Robert T. Smith, formerly of New Orleans.

Senator KERR. Fine.

Mr. Smith, we are glad to have you here. You are not uneasy about the new invironment that tells me you are entering in view of your background in the Deep South.

STATEMENT OF ROBERT T. SMITH, DIRECTOR, PORT AUTHORITY, DULUTH

Mr. SMITH. Not necessarily so. As you probably know, Senator, many Yankees have migrated to the South. Many people think that those Yankees were needed there to help them raise their standards of living and to increase their knowledge of production, manufacturing, and port operations. We feel that in the South we likewise have some good men. So I have been selected from those thinking people to show the Northerners that the South has also good men to lend to the North.

However, I am not a native southerner. I am a Louisianan by adoption some 19 years ago, having been born and raised in the great State of Pennsylvania, the city of Brotherly Love, known as Philadelphia.

While I have enjoyed the South very much, I will be very happy to see snow in the wintertime.

Senator KERR: That is fine. We are glad to have you here. It is interesting to note that a few days ago we were considering improving the navigation facilities for the great port of New Orleans, La. One of the principal reasons advanced by its advocates for its early development was the improvement of the industrial economy of the Middle West and the Great Lakes area, and I am happy to see an equal concern on the part of those advocating this project to improve the industrial economy and transportation facilities for the lower Mississippi Basin. I think that is very commendable.

I have been especially interested in the development of facts showing the interest of farmers in this legislation. I am addressing myself to Dr. Halvorson and Mr. McDonald. I wonder if consideration has been given to the economy in the transportation of mineral fertilizer in this area?

Mr. MCDONALD. Speaking for the Farmers Union, so far as I know we have made no study such as the one made in grain by the Farmers Union Grain Terminal Cooperative that I referred to in my statement. I would imagine that comparable benefits would result in the transportation of fertilizers. It is a very heavy commodity.

Senator KERR. You know a lot of fertilizer comes from the central and southern part of the country. I think it is just as important that we expedite the getting of that fertilizer to the good farmers in that country as it is in getting the products of their soil out to us.

If you have any facts on that I would be glad to have you put it in the record.

Mr. HALVORSON. We don't have any, either. I am sure you are right that some of the superphosphate or phosphate rock comes from

Florida and moves up into the territory of Minnesota. And I think even sulfur that is used for the conversion of sulfuric acid for converting phosphate rock into superphosphate. It can also move up in some cases through the St. Lawrence.

Senator KERR. And also the potash and ammonia and other nitrate products that come from our part of the country.

Mr. HUNNER. I am John Hunner. Mr. Chairman, your inquiry along the lines you have indicated is something the Port Authority of Duluth is studying. We will be glad to submit our findings at a later date.

Senator KERR. Thank you.

Mr. Cohen, manager-secretary of the Chicago Regional Port District.

STATEMENT OF MAXIM M. COHEN, MANAGER-SECRETARY CHICAGO PORT DISTRICT

Mr. COHEN. Mr. Chairman, my name is Maxim M. Cohen. I am general manager of the Chicago Regional Port District. With your permission I would like to have the privilege of introducing into the record later a written statement.

Senator KERR. Very well.

Mr. COHEN. We are just as anxious to get your business as our good friends from the city of Milwaukee.

I would like to tell you that this is the first occasion that I have had to listen to an impartial dissertation on the economics of these connecting waterways. I think it has put for your committee in true perspective the fact that this is not a foreign proposition. I think Admiral Spencer expressed to you that it is vital to our own internal economy. I think you ought to also understand that the steel business that he speaks about, the expansion to 160 million tons, is something that is very vital to us in Chicago. Because, as you know, the Chicago area is today, and has been for several years, the greatest steel producing center in the United States. There isn't any question in our mind that we are going to continue in that particular sphere.

That is further advocated by the fact that in Chicago there is an investment of almost $300 million being made now by the major companies in increasing these particular facilities. I think there is another situation that ought to be brought in perspective here and I think my good friend Harry Brockel and John Beukema have expressed it. There is no purpose in my detailing it, other than this: Unless we have these deepened channels, none of us will be able to get all the advantages that the seaway will give to us. There isn't any particular sense in obviating or getting away from the necessity of this because if we have the seaway we ought to have all i s just advantages.

I think it is only fair for you and this committee to know that the port agency that I am connected with has always kept the needs of agriculture foremost in our thinking. Today we happen to be the only port authority on the Great Lakes area that are spending better than $16 million in the development of two brand new what we call automatic push button elevators, so that the farmer, the trader, our friends on the Chicago Board of Trade, can take advantage of the

seaway and this deepened shipping by handling more grain through the port of Chicago.

There is one other observation I ought to make and that is this: You are talking here and considering an investment of a little better than $100 million for connecting waterways. Dr. Danielian and others have told you that there are going to be some very substantial investments in these port cities. I think it is only right that the second largest city in the United States ought to tell you its position and that is this: That instead of dreaming and talking about these investments, that we are today making one. We are spending $24 million today. We started to spend this money the first of October in the development of a harbor to take care of this increased domestic inland waterway and St. Lawrence seaway business.

You may say to yourself why have we done this in view of the fact that the connecting waterways aren't straightened out? Our answer is very definite to you: We have done it because we have a deep and abiding faith that this situation will be settled on its economic virtues without any passion, and certainly in an unprejudiced fashion. We have faith that this is coming about. We have spent this money. We are spending it now. I think I ought to also tell you for the record that in the next 10 years we in Chicago will spend dollar for dollar what you are going to, we hope, for these connecting waterways.

We have a program that calls for an expenditure of a minimum of $75 million additional in the next 10 years. I think this is a direct indication of actual reality. In other words, it confirms the statements that these men have made.

I would like to close my statement by telling you that the agency I am connected with wants to reaffirm the statements that it made last year in full and unqualified support of the statements heard here today, as well as of the Corps of Engineers, that this job should be done.

Thank you.

Senator KERR. Thank you very much, Mr. Cohen, for your remarks.

Senator KERR. Is Mr. Rogers here now?

STATEMENT OF WILLIAM J. ROGERS, DIRECTOR, PORT OF CLEVELAND, OHIO

Mr. ROGERS. Mr. Chairman, I would just like to place in the record of this hearing a resolution adopted by the Council of the City of Cleveland approving completion of the connecting channels of the Great Lakes.

(The resolution referred to is as follows:)

AN EMERGENCY RESOLUTION MEMORIALIZING THE CONGRESS OF THE UNITED STATES TO ENACT LEGISLATION AUTHORIZING THE MODIFICATION OF THE EXISTING PROJECT FOR THE GREAT LAKES CONNECTING CHANNELS ABOVE LAKE ERIE

Whereas the House of Representatives on August 1, 1955, passed H. R. 2552 authorizing the modification of existing project for the Great Lakes connecting channels above Lake Erie; and

Whereas hearings will be held by the Public Works Committee of the United States Senate beginning January 26, 1956, on this important legislation; and

Whereas the opening of the St. Lawrence seaway is of vital importance to the commercial, industrial, and economic growth of Cleveland, and all cities in the Great Lakes area; and

Whereas S. 151 and S. 171, now pending before the Public Works Committee, will authorize improvements to the connecting channels of the Great Lakes so that one great inner-waterway system throughout the Great Lakes region will be possible; and

Whereas this council wishes to urge the United States Senate to consider this bill in a favorable manner; and

Whereas this resolution constitutes an emergency measure providing for the usual daily operation of a municipal department: Now, therefore, be it

Resolved by the Council of the City of Cleveland:

SECTION 1. That the Congress of the United States be and the same is hereby memorialized to enact into law the legislation authorizing the modification of the existing project for the Great Lakes connecting channels above Lake Erie.

SEC. 2. That the clerk of council be and he is hereby requested to transmit a copy of this resolution to Senators John W. Bricker and George H. Bender, and to Representatives Frances P. Bolton, Michael A. Feighan, William E. Minshall, and Charles A. Vanik.

SEC. 3. That this resolution is hereby declared to be an emergency measure and, provided it receives the affirmative vote of two-thirds of all the members elected to council, it shall take effect and be in force immediately upon its adoption and approval by the mayor; otherwise it shall take effect and be in force from and after the earliest period allowed by law.

Senator KERR. I would also like to place in the record at this point statements I have received from the Governors of Minnesota, Ohio, and Pennsylvania.

(The letters referred to are as follows:)

STATE OF MINNESOTA,
EXECUTIVE OFFICE,
St. Paul, January 17, 1956.

Hon. ROBERT F. KERR,
Senator from Oklahoma,
Senate Office Building, Washington, D. C.

DEAR SENATOR: I am informed that on January 26 the Senate Public Works Committee will hold hearings on the connecting channels project for the St. Lawrence seaway. I just want to express to you my deep interest in seeing this program proceed forthwith.

If there is any information we can supply, or anything at all that we can do out here to expedite this, please do let us know.

I'm looking forward to having a chance to see and visit with you again some time soon.

Sincerely yours,

ORVILLE L. FREEMAN,
Governor.

COMMONWEALTH OF PENNSYLVANIA,
GOVERNOR'S OFFICE,
Harrisburg, January 18, 1956.

Hon. ROBERT S. KERR,
Senate Office Building,
Washington, D. C.

DEAR SENATOR KERR: I understand that your subcommittee of the Senate Public Works Committee will hold hearings on the connecting channels project in connection with the St. Lawrence seaway, on Thursday, January 26.

It will not be possible for me to participate in the hearings because our legislature is in session. I am writing, however, to express to you the keen interest of the Commonwealth in this project and the seaway in general. We are working closely with Mayor Arthur Gardner, of Erie, concerning plans for the development of that port as our sole outlet to the seaway, and have been joining informally in the discussions of the newly formed Great Lakes Commission on related matters.

I hope that the work of your subcommittee may serve to keep the entire seaway development on schedule.

With kindest regards, I am

Sincerely yours,

GEORGE M. LEADER.

STATE OF OHIO,
OFFICE OF THE GOVERNOR,
Columbus, January 19, 1956.

Hon. ROBERT S. KERR,
United States Senator,
Senate Office Building,
Washington, D. C.

DEAR SENATOR: I have been informed that the Senate Public Works Committee has called a hearing on the Great Lakes connecting channels project for Thursday, January 26, 1956, at 10 a. m., and that you are the ranking Democratic member of the subcommittee which will conduct such hearing.

Since the Great Lakes-St. Lawrence seaway project will have a channel or channels 27 feet deep or more, I favor the connecting channels project, as I understand it proposes to make a connecting channel or channels of not less than 27 feet deep, both for inward and outward bound vessels, through the Great Lakes including the channels connecting such Great Lakes.

I have also been informed that the City Council of Cleveland, Ohio, has adopted a resolution recommending the connecting channels project, however, I have not seen the resolution.

From what I know of the project, I favor it, but of course, if the evidence does not warrant any part of the project, I undoubtedly would want to limit my recommendation to that part of the project which the evidence justifies.

Sincerely yours,

FRANK J. LAUSCHE, *Governor.*

Senator KERR. I want to express appreciation to all the witnesses who have been heard.

Are there others who wish to be heard, whose names have not been called?

(No response.)

Senator KERR. I thank the engineers for their cooperation.

Senator, do you have anything to say about this matter?

Senator MCNAMARA. Yes, Mr. Chairman. I think that the testimony that we have heard today, added to what has already transpired in the House and in the previous hearings of the Senate committee, makes a pretty complete case. As a freshman Senator, having had the honor and pleasure of working on your committee for a little over a year now, I have learned one thing for sure: When we find you as patient and cooperative as you have been through this, and we find our case in such good shape, I had better quit while I am ahead.

Thank you.

Senator KERR. The committee will endeavor to get this out of the subcommittee at the earliest possible date to the full committee in order that it might be expedited. Thank you.

(Thereupon, at 12:28 p. m., the subcommittee was adjourned.)

(Supplemental statements received are as follows:)

CONGRESS OF THE UNITED STATES,
HOUSE OF REPRESENTATIVES,
Washington, D. C., January 25, 1956.

Hon. ROBERT S. KERR,
Chairman, Subcommittee on Rivers and Harbors,
Committee on Public Works, United States Senate.

DEAR SENATOR KERR: I am enclosing herewith a statement concerning the authorization of the Great Lakes connecting channels project. I would appreciate it if you would include it in the record of the hearings before your subcommittee on this legislation.

Sincerely yours,

JOHN W. BYRNES, *Representative in Congress.*

STATEMENT OF HON. JOHN W. BYRNES REPRESENTATIVE FROM THE EIGHTH DISTRICT, WISCONSIN

Mr. Chairman and members of the committee, I urge your early approval of legislation to authorize the Great Lakes connecting channels project, as proposed in the report of the Chief of Engineers to Congress in Senate Document 71, 84th Congress.

The Great Lakes form perhaps the most important system of inland waterways in the United States. Eight of our States are located directly upon the Great Lakes, while nine others are in close proximity. In these States lives 35 percent of our population, 36 percent of our farmers, 42 percent of our production workers. From this region comes almost half of our farm products and 44 percent of our manufactured goods. The Great Lakes provide a natural mass transportation means for the products produced and consumed by this most important area.

We are now building the great St. Lawrence seaway which will open up this region and this natural waterway to the commerce of the world. It is vitally important, of course, that we be prepared, when this great project is finished, for the commerce it is expected to bring to the Great Lakes basin. That is one of the reasons why it is important that the connecting channel project be authorized. Seaway depth is needed in the connecting channels if seaway traffic is to go to all of the Great Lakes.

Even if the seaway were not being built, however, there is adequate justification for the connecting channel project.

We have, in recent year, witnesses a revolution in the Great Lakes fleet. Fleet owners have introduced new and much larger vessels to overcome increased construction and operating costs. These ships must be fully loaded to operate at maximum efficiency and capacity. These vessels will be unable to pass through present connecting channels, fully loaded, when lake levels are at ordinary, or low, stages.

It should be understood that we have just gone through a period of extremely high water levels on the Great Lakes. Since 1942, lake levels have been at their peak, but now, in accordance with their cycle, they are receding. As they do, the present inadequacy of the connecting channel depths becomes an even more critical factor in the operation of the Great Lakes fleet. For the swift, economic transport of needed raw materials and finished goods, via modern lake vessels, an increase in connecting channel depths is urgently needed.

The district engineer, in his report, points out that the estimated annual benefits through savings in shipping costs, resulting from the deepened channels and related harbor work, is $9,868,000, 77 percent of which can be allocated to channel-deepening work. The benefit-cost ratio is a high 1.78.

My district, with its vast frontage upon the Great Lakes, is particularly concerned with the early authorization of this work. It recognizes that a productive and efficient Great Lakes fleet will bring benefits to the whole lakes region of which it is an integral part. Our port cities are making plans for the improvement of their harbors and port facilities which depend upon the completion of the seaway and the connecting channels project. Without the deepening of these channels, the seaway project is, of course, valueless to the ports of Lake Michigan.

I urge an early beginning upon this most important work.

BUFFALO CHAMBER OF COMMERCE,
OFFICE OF EXECUTIVE VICE-PRESIDENT,
January 25, 1956.

Mr. FILO M. SEDILLO,
Chief Clerk, Committee on Public Works,
United States Senate, Senate Office Building,
Washington, D. C.

DEAR MR. SEDILLO: Thank you for your notice received today concerning a hearing before the Subcommittee on Flood Control, Rivers and Harbors of the Senate Committee on Public Works on the subject of deepening the connecting channels above Lake Erie.

Due to the shortness of time and existing engagements here, I shall be unable to appear at the hearing.

Some time ago we sent a supporting statement to all members of the Public Works Committee of the Senate with a request that our statement be made a part of the hearing record. I enclose a copy of that statement and would appreciate your inserting it in the record.

Sincerely yours,

CHARLES C. FICHTNER,
Executive Vice President.

STATEMENT OF THE BUFFALO CHAMBER OF COMMERCE IN SUPPORT OF THE PROPOSAL TO DEEPEN THE CONNECTING CHANNELS OF THE GREAT LAKES TO 27 FEET

The Buffalo Chamber of Commerce strongly endorses the proposition that the several channels connecting Lakes Erie, Huron, Michigan, and Superior be deepened to 27 feet low water depth for the following reasons:

(*a*) The growing economies of the United States and Canada need expanded and more modern lake-transportation facilities.

(*b*) The economy that would accrue from transporting the tremendous volume of interstate and foreign commerce that moves on the lakes and which will soon move on the seaway would more than offset the cost of the project.

(*c*) Uniform depth of 27 feet in the seaway and connecting lake channels would assure more efficient and economical use of the new ships constructed in comparatively recent years and those that will replace the older freighters which are rapidly becoming obsolete.

(*d*) The self-liquidating prospects of the St. Lawrence seaway would be enhanced by the ability to use all of the loading capacity of ships that will ply between the seaway and the upper lakes.

(*e*) The adverse effect on vessel loading capacity during periods of low water levels will be dissipated.

Deepening of the connecting lake channels would be a logical and timely contribution to the expanding economy of the United States and Canada. It would be a particular asset to industries and agriculture which depend on lake transportation to move raw materials, products of the farms and semifinished and finished products of manufacture.

The contributions of lake transportation to the national economy and well-being during periods of war and peace are well known. It is also a well-known fact that in some comparatively recent years the capacity of the then existing Great Lakes fleet of the United States was insufficient to satisfy the demands for shipping space. It was necessary, for instance, to ship some iron ore, grain, and coal, which would have normally used the more economical lake transportation, over-all rail routes even though for a number of successive years Congress waived our coastal laws and permitted Canadian ships to operate between United States ports on the Great Lakes.

Contributing to that incapacity to satisfy shipping requirements was the existence of many vessels in the Great Lakes fleet of small carrying capacity and slow speed. Such of the new ships that were built during World War II and the even larger cargo carriers that have been launched since, have amply demonstrated the deficiencies, by present day yardsticks, of the many old freighters that constitute a large part of the present fleet. If for no other reason, certainly competitive considerations will force the retirement of the old outmoded cargo carriers and the continued construction of modern ships to replace them. In addition, the growing economy of the country will have to be matched by a corresponding increase in the capacity of the Great Lakes fleet.

Those are factors which strongly justify and support channel dimensions which will adequately permit the most economical movement of the tremendous volume of commerce that crisscrosses through the Great Lakes and will soon expand to the St. Lawrence seaway.

It is expected that some of the major commodities that will use the St. Lawrence seaway will consist of iron ore, coal and grain. It is reasonable to predict that these commodities will move in lake freighters. For purposes of economical operation, the ships that make up the Great Lakes fleet cannot, generally, be confined to a single operation or trade but must be sufficiently flexible to haul varying cargoes between various ports during the course of a navigation season.

Vessels which are constructed to utilize the full depth of the seaway will not be able to lead to capacity when operating in the interlakes trades unless the seaway depth is duplicated in the connecting lake channels. That would be an economic waste not only to the shipping companies and their patrons but also in the national interest.

The St. Lawrence seaway, which is expected to be navigable in 1959, will provide a depth of 27 feet between Lake Erie and deep water at Montreal. Its cost is to be offset by the imposition of tolls on commerce that passes through its facilities. Buffalo taxpayers, and in fact all citizens of the two countries which the seaway will serve, are interested that the self-liquidating objective be met. The key to that objective is cargo volume and certainly some of that volume will

have its source or destination in the upper Great Lakes. Any limiting factors, such as inadequate channels, will lessen the capacity and efficiency of the seaway to meet its obligations.

At best, the seaway will not measure up, tonnagewise, to any of the connecting lake channels. Nevertheless, it sets a pattern or standard by reason of its 27 foot depth, which cannot be fully utilized unless that depth is made available throughout the Great Lakes.

Another element that has an impact upon the economics of lake transportation is the fluctuating variation in water levels through the Great Lakes and connecting channels. The positive and minus character of a ship's loading capacity often depends upon those natural changes.

The new era of shipbuilding on the Great Lakes that started after World War II will, of necessity, have to be continued. The planning and construction of new ships should not be hampered by dissimilar navigating controls. They should have the assurance of uniform navigating depths throughout the Great Lakes and St. Lawrence Basin.

BUFFALO CHAMBER OF COMMERCE,
June 27, 1955.

Mr. N. R. DANIELIAN,
President, Great Lakes-St. Lawrence Association,
Washington 6, D. C.

DEAR MR. DANIELIAN: Thank you for your letter of June 24 regarding hearings on bills to deepen the connecting lake channels.

We supported this project last January when it was being considered by the Board of Engineers for Rivers and Harbors. Copy of our statement which was sent to Colonel Falkner and other key personnel including Governor Harriman is attached.

In February, we submitted the same statement to all members of the Senate and House Committee on Public Works and were assured by the chairmen of both committees that it would be considered at hearings and be made a part of the printed records thereof. Copies were sent to Senators Ives and Lehman and to Congressmen from this area.

We are reiterating our support to Chairman Blatnik and members of his subcommittee. Copy of covering letter is attached. At your suggestion, I am also writing to Sherman Adams and to Rowland Hughes who is my personal friend. Copies of letters are attached.

Incidentally, Adm. Lyndon Spencer of the Lake Carriers Association informed us of the pending hearings last Wednesday. He received a copy of our statement when it was first drafted and seemed well pleased with it.

Sincerely yours,

CHARLES C. FICHTNER,
Executive Vice President.

BUFFALO CHAMBER OF COMMERCE,
June 27, 1955.

Hon. JOHN A. BLATNIK,
Chairman, Subcommittee on Rivers and Harbors,
Public Works Committee, House Office Building,
Washington, D. C.

DEAR CONGRESSMAN BLATNIK: The Buffalo Chamber of Commerce is deeply interested in affirmative action to deepen the channels connecting the Great Lakes. We understand that your subcommittee will shortly hold hearings on the several bills which are aimed at that objective.

I attach copy of our statement which was mailed to all members of the Senate and House Committees on Public Works on February 3, 1955. We have assurances from the chairmen of both committees that our statement would be incorporated in the printed record of any hearings to be held.

Our present purpose is to reiterate our position in the matter. Therefore, it will be appreciated if your subcommittee will give current consideration to this statement and that it be made a part of the record of your hearings.

Sincerely yours,

CHARLES C. FICHTNER,
Executive Vice President.

BUFFALO CHAMBER OF COMMERCE,
June 27, 1955.

Hon. SHERMAN ADAMS,
Assistant to the President,
Washington, D. C.

DEAR MR. ADAMS: Important to the economy of the United States and particularly to the vast midcontinent area are the water transportation facilities provided by the Great Lakes. The multimillion tons of cargo consisting of iron ore, grain, coal, limestone, and many other commodities which utilize those facilities contribute immensely to the welfare and prosperity of this country and Canada.

The economies of lake transportation and the efficient use of vessels engaged in that trade can be measurably increased at a relatively small expense by deepening the channels that connect the several Great Lakes.

Bills to implement that objective have been introduced in both branches of Congress and will be the subject of hearings before the House Subcommittee on Rivers and Harbors on June 29 and 30.

The attached statement which we are submitting to that subcommittee brings the subject in detailed focus.

In the interest of progressively improving our national economy, we respectfully request the executive branch of our Government to support this legislation.

Sincerely yours,

CHARLES C. FICHTNER,
Executive Vice President.

BUFFALO CHAMBER OF COMMERCE,
June 27, 1955.

Hon. ROWLAND R. HUGHES,
Director, Bureau of the Budget,
Washington, D. C.

DEAR ROWLAND: Hearings are to be held on June 29 and 30 by the House Subcommittee on Rivers and Harbors on proposals to deepen the channels connecting the several Great Lakes.

We are supporting this legislation with the sincere conviction that the benefits which will be derived from economies in lake transportation will greatly exceed the cost of the project.

I attach a copy of our statement which details the various assets that will accrue from the proposed work.

My purpose in referring the matter to you is to enlist your support of this worthwhile project. Anything you can do to help this legislation through Congress will be appreciated.

Sincerely yours,

CHARLES C. FICHTNER,
Executive Vice President.

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